RPA: CREDIT PRESCREEN

(Based on Automation Anywhere tool)

Dissertation/ Project report submitted in partial fulfillment of the requirement for the degree of

BACHELOR OF TECHNOLOGY

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

By

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UNDER THE GUIDANCE OF

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DECLARATION BY THE SCHOLAR

I hereby declare that the work reported in the B-tech thesis entitled "**RPA- CREDIT PRESCREEN** " submitted at Jaypee **University of Information Technology, Waknaghat, Solan** is an authentic record of my work carried out under the supervision of **Mr. Chandan Nagavolu**. I have not submitted the work elsewhere for any degree or diploma.

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CERTIFICATE

I hereby declare that the work presented in this report entitled RPA : Credit Prescreen in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology** in **Electronics And Communication Engineering** submitted in the department of Electronics And Communication Engineering, Jaypee University of Information Technology Waknaghat is an authentic record of our own work carried out over a period from Feb 2019 to May 2019 under the supervision of **Mr**.

Chandan Nagavolu.

The matter embodied in the report has not been submitted for the award of any other degree or diploma.

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ABSTRACT

Robotic process automation (or RPA) is a rising type of business process robotization innovation dependent on the thought of programming robots or man-made consciousness laborers. In customary workflow robotization tool, a software engineer delivers a list of activities to mechanize a task and interface to the back-end framework utilizing inside application programming interfaces (APIs) or committed scripting language. Interestingly, RPA frameworks build up the activity list by viewing the client performing that task in the application's graphical user interface (GUI), and then performing the automation by repeating those tasks straightforwardly in the GUI. This can bring down the obstruction to utilization of robotization in items that may not generally include APIs for this reason. It is prevalently used to mechanize business processes and errands, resulting in reductions in spending and giving businesses a competitive edge. Computerization innovation has been a staple of business for the most recent decade, however as of late, RPA innovation has achieved a great dimension of complexity while holding usability. It is no longer a tool that is exclusively used to encourage automation of simple and dull IT errands. RPA is developing, and with the combination of other technologies - for example, artificial intelligence and machine learning (ML) – helping engineers to investigate new potential outcomes.

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LIST OF ACRONYMS

RPA	Robotic Process Automation
OCR	Optical Character Recognition
AA	Automation Anywhere
CRS	Credit Request System
CR	Control Room

CHAPTER 1

INTRODUCTION TO ROBOTIC PROCESS AUTOMATION

The way toward computerizing business activities with the assistance of robots to decrease human intercession is said to be Robotic Process Automation (RPA).

- **Robotic** are substances which imitate human activities are called Robots.
- A **process** is an arrangement of steps which lead to important movement.
- Automation is any procedure which is finished by a robot without human mediation.

RPA – otherwise called smart or intelligent computerization – all in all alludes to catching beforehand human-driven errands as little, independent programming applications outside the ICT frameworks a company requirements for its day by day work. These undertakings that work on said ICT frameworks can be kept running on-request and tied up to complex arrangement of activities. They center around the business choice should have been made in the organization. For instance, a back-office process like checking faculty data from one framework while making a receipt with another framework would be perfect possibility to computerize incompletely

Along these lines, when we condense every one of these terms together, at that point emulating human activities to play out a grouping of steps, prompting an important action, with no human intercession is otherwise called Robotic Process Automation.

There are four surges of RPA. The first is an exceedingly modified programming that will work just with specific kinds of procedure in, state, bookkeeping and fund. The more broad streams I depict as far as a three-path motorway You robotize however much of that as could be expected. The second path as far as power is a self-improvement pack where a layout is given and master developers structure the robot. That is typically modified for a particular association. The fast track is venture/endeavor safe programming that can be scaled and is reusable.

1.1 THE EVOLUTION OF RPA

An ongoing report by an organization featured that "Digitalization is getting to all pieces of our lives and it is profoundly upsetting how organizations do and along these lines structure their business. Most organizations (55%) should change their plans of action because of digitalization in forthcoming years.

RPA and man-made reasoning have moved from being sci-fi to the real world. RPA still has numerous development zones and with the improvement of different ages of astute automation, one can just envision the maximum capacity of robots as RPA keeps on disentangling and simplicity lives of people. More or less let RPA remove the robot from human, so your kin can concentrate on the issues that just people can explain.

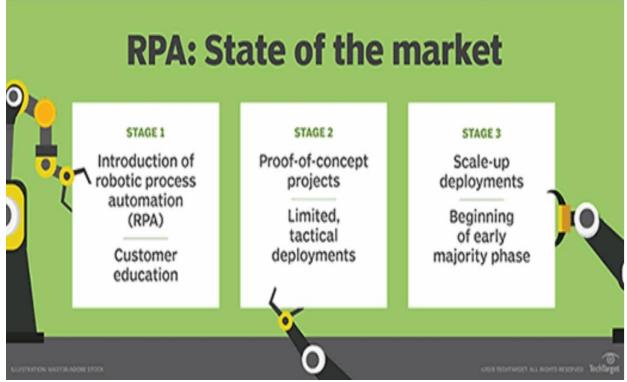


Fig. 1.1 : RPA as The State of Market

1.2 TYPES OF ROBOTIC PROCESS AUTOMATION

- **ATTENDED AUTOMATION:** These tools will require human intervention while performing automation processes.
- **UNATTENDED AUTOMATION:** These tools are intelligent and have decision-making capabilities.
- **HYBRID RPA:** These tools will have combined capabilities of both attended and unattended automation tools.

1.3 GENERAL FUNCTIONS OF RPA

- Opening different applications like emails, moving files etc.
- Integration with the existing tools.
- Collecting data from different web portals.
- Processing data which includes calculations, data extraction etc.
- Maintenance and support services by a company
- Tool Smartness: It should act as an end-user.

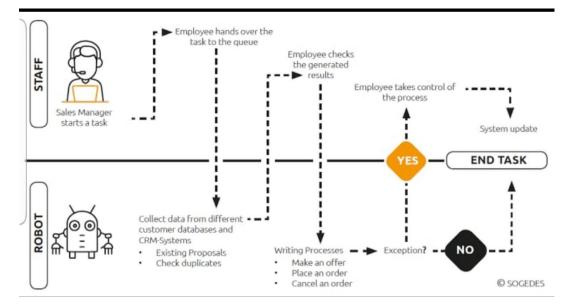


Fig.1.2 : Differentiating between Robots and Staff

CHAPTER 2

RPA IMPLEMENTATION METHODOLOGY

2.1 METHODOLOGY

a) PLANNING

In this phase, you need to identify the processes you want to automate.

- The process is Rule-based.
- The input information is in electronic arrangement and is comprehensible.
- Existing System be utilized for what it's worth with no change.
- The process is manual and tedious.

Next, steps in planning phase are

- Setup project group, conclude usage courses of events and approach.
- Agree on arrangement structure for performing RPA processes.
- Identify logging mechanism that ought to be actualized be to discover issues with running bots.
- Clear guide ought to be characterized to scale up RPA implementation

b) DEVELOPMENT

In this stage, you begin building up the computerization work processes according to concurred plan. Being wizard driven, the execution is fast.

c) TESTING

In this stage, you run Testing cycles for in-scope mechanization to recognize and address absconds. In the event that any deformities are discovered they are investigated and remedied.

d) SUPPORT AND MAINTAINANCE

Give constant help in the wake of going live and helps in prompt imperfection goals. Pursue general upkeep rules with jobs and obligations with business and IT bolster groups.

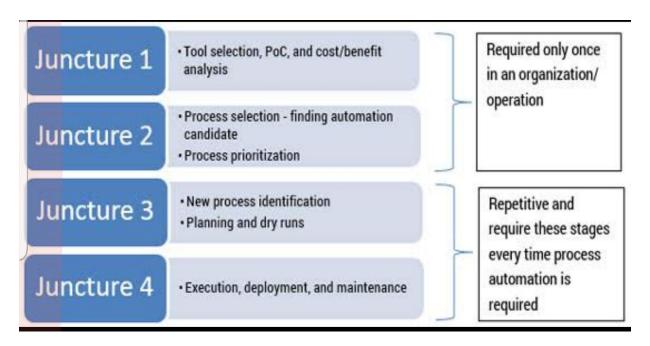


Fig. 2.1: RPA Implementation Methodology

2.2 FOCUSES TO CONSIDER WHILE CONSIDERING TOOLS

- Platform autonomy
- Easy to utilize
- Cost
- Adaptability
- Industry unequivocal;
- Maintenance and bolster benefits by a company
- Tool savvy : It ought to go about as an end client

CHAPTER 3

RECONNOITRING RPA

3.1 BENEFITS OF RPA

- a) Enabling better client administration.
- b) Creating cost investment funds for manual and redundant assignments.
- c) Allowing procedures to be finished substantially more quickly.
- d) Enabling workers to be increasingly profitable.
- e) RPA has been named as the innovation with the capacity to "remove the robot from the human".

3.2 DRAWBACKS OF RPA

- a) In the event that a robot can perform at a quicker, progressively reliable rate, at that point the dread is that people may not be required by any stretch of the imagination.
- b) This is ordinarily the greatest obstruction that will choose whether or not an organization will put resources into mechanical computerization or hold up until a later stage.
- c) The presentation of mechanization adds another layer to that problem as the robots require programming and learning of how to work them.

3.3 MYTHS ABOUT RPA

a) CODING IS REQUIRED FOR RPA

That is not valid. To utilize Robotics Process Automation instruments, one needs to see how the product takes a shot at the front end and can how they can use for computerization.

b) RPA DOES NOT REQUIRE HUMAN SUPERVISION

This is a fantasy since people are expected to program the RPA bot, feed them undertakings for mechanization and oversee them.

c) ONLY LARGE COMPANIES USE RPA

Little to medium estimated associations can send RPA to computerize their business. However, initial costing will be high yet can be recouped in 4-5 years.

3.4 APPLICATIONS OF RPA

Worldwide organizations, for example, deloitte, Accenture, Capgemini and some more, use RPA in their everyday errands. These organizations advantage by utilizing RPA as it gives precise, solid, steady yields with high profitability rates.

• CONDUCT HIGH VOLUME REPETITIVE TASK

RPA can undoubtedly mimic rekeying of information starting with one framework then onto the next. It performs assignments like information section, reordering.

• PERFORM MULTIPLE TASK

Works various and complex undertakings over numerous frameworks. This procedures exchanges, control information and send reports.

• HEALTHCARE

Therapeutic associations can utilize RPA for dealing with patient records, claims, client support, account the executives, charging.

• **RETAIL**

For retail industry, it helps in refreshing records, sending warning.

• **BANKING**

Banking industry use RPA for more effectiveness in work, for precision in information, and for the security.



Fig. 3.1 : Applications of RPA

CHAPTER 4

ROBOTIC PROCESS AUTOMATION TOOLS

4.1 RPA TOOLS

In any association, there are a ton of errands which are monotonous and tedious in nature. While doing these kinds of errands, there is dependably a gigantic plausibility for blunder event on account of reiteration. So as to maintain a strategic distance from these blunders and spare time, a great deal of RPA Software is accessible in the market. Day by day errands which are performed on the product by representatives are computerized utilizing the bot.

4.1.1 BLUE PRISM

Blue crystal RPA gives all center abilities. It can take a shot at any stage with any application. For utilizing this instrument you ought to have programming aptitudes yet it is easy to use for developers. RPA devices help business task to be light-footed and savvy via robotizing, manual, rule based back redundant office processes.

Features:

- It very well may be utilized on any stage
- Can work for any application
- Effectively actualized in the brief span length of 4 to about a month and a half

Pros:

- They have fast execution.
- They are platform independent.

Cons:

- You ought to have high programming aptitudes.
- High cost.

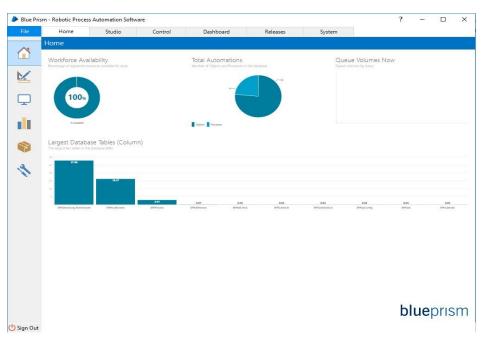


Fig 4.1 : Blue Prism screen

4.1.2 CONTEXTER

This apparatus is ideal for any size front workplaces. It offers help for citrix. It works for all workstation applications. Contexture is RPA arrangement offers total client see, online assistance, and offers information between at least two applications.

Features:

- It underpins citrix and RDP virtualization condition
- It gives reports and examination
- Robotize undertakings continuously

Pros:

- It works quick.
- It very well may be effectively coordinated with AI

Cons:

• It just backings window working framework

4.1.3 UiPATH

UiPath gives all center capacities. It offers help for Citrix. It is easy to understand for non business engineers as well. It can deal with complex procedures. What's more, this instrument is ideal for any size of business.

Features:

- It can robotize quicker. Eight to multiple times quicker mechanization through citric as well.
- Gives an open stage.
- It can handle any procedure, in any number, independent of its multifaceted nature.

Pros:

- No programming aptitudes required.
- Ease of use because of drag and drop facility.
- Gives great highlights, free of expense.

Cons:

• Constrained coding usefulness.

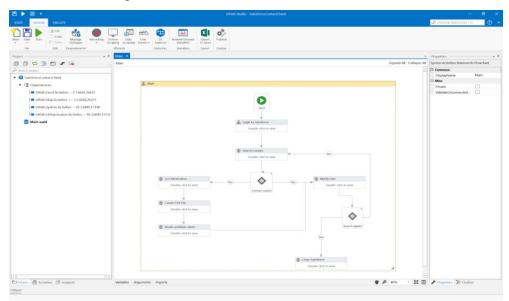


Fig. 4.2 : UiPath screen

4.1.4 AUTOMATION ANYWHERE

Automation Anywhere gives all center capacities. It gives on reason and cloud administrations. The easy to use apparatus is ideal for medium and vast associations. RPA apparatus joins regular RPA with scholarly components.

Features:

- Gives Bank-grade security.
- Gives security through validation, encryption, and certifications.
- Quickly Automates intricate and confounded tasks.

Pros:

• User-friendliness.

Cons:

• IQ bot needs an improvement

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Fig. 4.3 Automation Anywhere screen

4.1.5 PEGA

Pega can be utilized on work area servers. It gives just cloud based arrangements or administrations. It can take a shot at Windows, Linux and Macintosh. This device is ideal for medium and large organizations. This instrument bolsters all use situations. It is a procedure the executives apparatus.

Features:

- It will help you in the sending of your answers for the clients.
- It gives a cloud based arrangement
- The versatile insight that learns on the fly.

Pros:

• As a result of the occasion driven methodology, it works quicker. It is a powerful and solid device.

Cons:

• There is no on-reason arrangement.

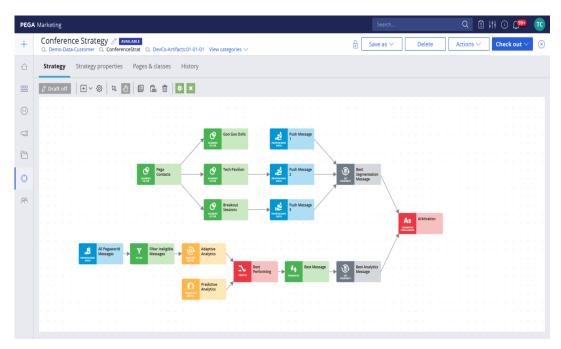


Fig. 4.4 : Pega screen

4.2 CONCLUSION

Further to our examination of each tool in detail here, Blue Prism is the best device however you ought to get prepared before utilizing it. What's more, preparing is exorbitant too. UiPath is anything but difficult to utilize notwithstanding for non engineers. It gives similar highlights, and even it servers little scale ventures. For workstation applications, Contexter is the best alternative as they have a claim to fame in it. Kofax Kapow has incredible potential. It is an easy to understand IDE which enables engineers to manufacture robots all the more productively.

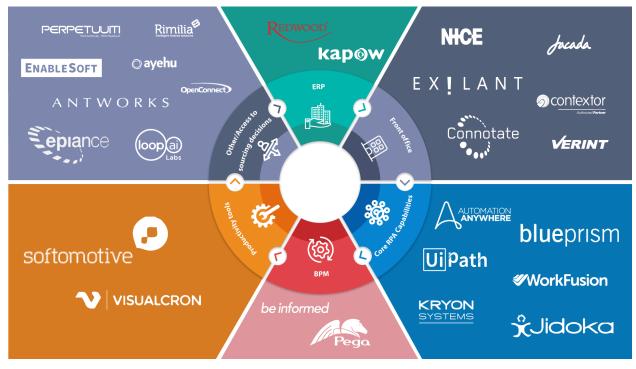


Fig. 4.5 : RPA tools

CHAPTER 5 AUTOMATION ANYWHERE

Automation Anywhere(AA), the world's biggest RPA programming supplier turns out as a leader indeed in 2018 and involving a decided position with respect to advertise sway. More associations today depend on mechanical robotization stage to build up their canny computerized workforces. Automation Anywhere apparatus utilizes programming bots that empower a few ventures to computerize their individual business forms.

5.1 IMPORTANT FEATURES OF AUTOMATION ANYWHERE

The three main components in the AA architecture are:

5.1.1 BOT CREATER

It enables the developers to create, edit and run bots. They have the development license.

5.1.2 CONTROL ROOM

An application that works like a controller and handles the whole execution and the executives of customers, certifications, jobs and security.

5.1.3 BOT RUNNER

Only allows to run the bots. They have the run license.

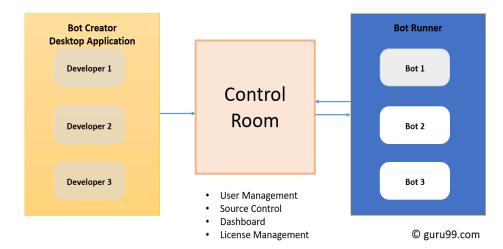


Fig. 5.1: Automation Anywhere Architecture

5.1.4 AUTOMATION ANYWHERE ENTERPRISE RPA

The item is devoted for the business client and involves propelled capacities to offer an instinctive interface for the business client, bot engineer and the mechanization chairman. This stage is least demanding to utilize, supports to maintain a strategic distance from intricacy and guarantees quick appropriation and fast arrangement.

5.1.5 IQ BOTS

IQ bot is a subjective intended to help just as gain from business clients and empower the business client to encounter the intensity of cutting edge man-made brainpower advancements. The table underneath clarifies various kinds of bots in automation anywhere:

- Task bot
- Meta bot
- IQ bot

TYPES OF BOTS IN AUTOMATION ANYWHERE

Task Bot	Meta Bot	IQ Bot
Automate rules-based repetitive tasks, in areas like document administration	Automation building blocks that facilitates scalability with next-generation integration	Relies on continuously learning and enhancing process automation
Best for: Repetitive, rules-based tasks that rely on structured data	Best for: Complex scalable processes	Best for: Managing hrough fuzy rule & procesing unstructured data

Fig. 5.2 : Types of bots

5.1.6 BOT INSIGHTS

The stage shows insights and charts to investigate bot execution in the system. It additionally permits figuring the time spared in automation process. It is the first examination arrangement work for bots.

5.1.7 BOTFARM

It is an on interest venture grade stage for RPA bot. The stage scales the limit of the computerized workforce by sending bots whenever, anyplace with a solitary snap. It can make ,send and handle a great many programming bots and can guarantee versatility, flexibility and adaptability.

5.1.8 BOT STORE

The main commercial center for attachment and play bots devoted for business mechanization activities. It empowers ventures to find, convey and assemble bots, including process bots, application bots and subjective bots in a small amount of a second.

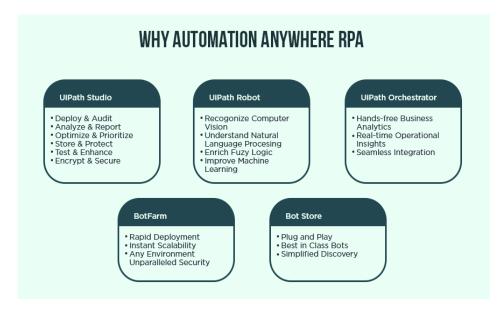


Fig 5.3: Unique Feature Of Each Product

5.2 PROMINENT FEATURE OF AUTOMATION ANYWHERE TOOL

5.2.1 TASK EDITOR

- In Automation anywhere it is conceivable to produce assignments by moving the things from the tool compartment. With the assistance of undertaking supervisor, the client can adjust, separate and improve recorded errands. The task editor incorporates 380 or more activities including:
- Keyboard & Mouse actions
- Windows actions
- Database actions
- Conditional Actions
- Files/Folder Actions
- Loop actions
- Internet actions
- Clipboard actions.

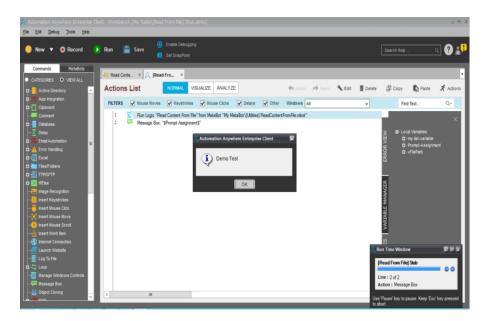


Fig. 5.4 : Task editor screen

5.2.2 WORKFLOW DESIGNER

This component permits making an easy to comprehend, inbuilt graphical portrayal of the business forms. It is committed for robotizing forms that incorporate various assignments into an arrangement alongside exchange ways to help when a stage falls flat.

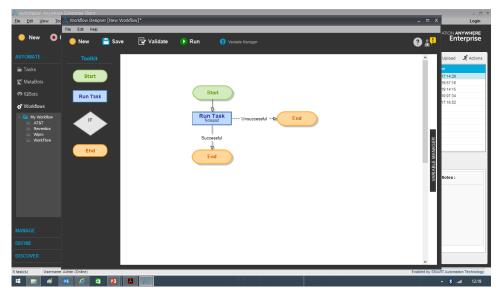


Fig. 5.5 : Basic workflow

5.2.3. REPORT DESIGNER

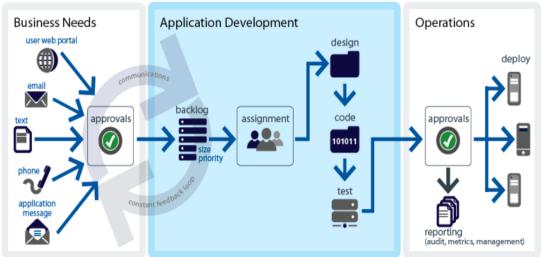
With this Automation Anywhere RPA include the client can produce and print reports showing the execution history. The AA device highlights Task Timeline, Task run, visual logs and ROI reports

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Fig. 5.6 : Report designer screen

5.2.4 AUTOMATION LIFECYCLE MANAGEMENT

Automation Lifecycle Management (ALM) empowers a request to the chaotic procedure of structure RPA mechanization in expansive associations. It enables the RPA bots to advance through the whole phases of the product lifecycle as referenced by big business.



Automated Workflow

Fig. 5.7 : Automation Lifecycle Management

5.2.5 CITRIX AUTOMATION WITH AISENSE

Some security environments including citrix are picture based frameworks and are hard to computerize. An AI Sence highlight of AA applies outstanding AI capacities to encourage the mechanization of information.

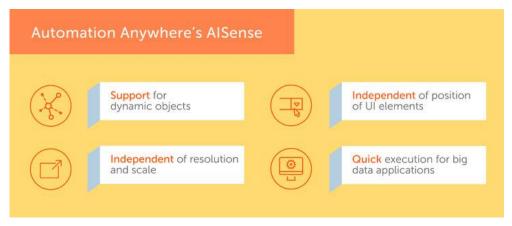


Fig. 5.8 : AISense features

5.2.6 RECORDERS

Utilizing the recorders in AA, the clients can record, spare and run the testing activities. This choice records the client activities as per the control arranges.

Three sorts of alternatives are accessible in AA.

- Smart Recorder catches whole action as item cloning. It gives greater adaptability amid chronicle undertakings that include different advancements like java, HTML.
- Screen Recorder catches activities like mouse move, mouse snaps and console tasks. It is otherwise called a standard recorder.

Web Recorder - Used for web information extraction. This choice precisely and dependably records just as computerizes web situated undertakings without programming rationale.

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Fig. 5.9 : Types of recorders

5.2.7 IMAGE RECOGNITION AND OCR

Another component in AA instruments that permits acknowledgment just as an examination of pictures, is image recognition. Also, OCR (Optical Character Recognition) highlight is significant where picture acknowledgment turns out to be increasingly refined. It permits changing over content and images into characters.



Fig. 5.10 : Optical character recognition

5.3 CONTROL ROOM

- 1. Control room gives simple access and the board anyplace and whenever.
- 2. It gives electronic checking and organization.
- 3. Upgraded for efficiency

Its component board comprises of numerous things like-

- Dashboard
- Repository manager
- Operations room
- User management
- Audit trial
- Task schedules
- Security
- Clients
- Credential manager
- App management

🖻 < Automation Anywh	here \times + \vee								- 0	×
\leftrightarrow \rightarrow \circlearrowright \bigtriangleup	850041501gdl.ind.corp.ad:8080/cont	rolroom/						5≡	L E	
	Control Room							🌣 🛛) Krishna -	
Dashboard	() Tasks completed su	uccessfully								
Repository Manager				Failed Tasks in						
Operations Room	Registered Clients	Active Users	e	last 2 days	c					
User Management	1	2		0						
Audit Trail	Tasks in Progress					Upcoming	Tasks			
Task Schedules	Client Task Name Start	ed On 🔺 Progress	s	Status	Actions	Schedule Name		Recurrence	Next Occurrer	ice
Security										
Clients										
Credential Manager	Repository									
App Management	Total files in repository	My Docs	My Exes	My Lists	My MetaBots	My Reports	My Scripts	My Tasks	My Workflo	N
	0	0	0	0	0	0	0	0	0	
🔳 🖉 🖬 🤤	📃 🖭 🧿 🙆							ጵ ላ 🖬 🖬	식× 4:17 AM 4/10/2019	3

Fig. 5.11 View of control room

CHAPTER 6

LOGIN TO AUTOMATION ANYWHERE

6.1 STEPS TO BE FOLLOWED

• Double tap on Automation Anywhere enterprise client 10.7 symbol on work area.



Fig. 6.1 : Automation Anywhere icon

• Enter the required credentials and then click 'OK'.

	OMATION YWHERE Code great	
Login to	o Control Room	?
Control Ro	oom:	1
	stname>: <port>/controlroom. contact your control room admin in case you need any help.</port>	
Username:	developer1	
Password:		
	Login	
	<u>Stro</u>	
	© 2017 Automation Anywhere, Inc.	

Fig. 6.2 : Control room login

• Then click on "**My Tasks**" in Automate Panel (Please see below highlighted with Red), then click on "**OTC Cash Apps**".

Automation Anywhere Enterprise Clie	nt					
File Edit View Tools Help Fee				Sea	rch Help Q	
AUTOMATE	My Tasks					🔲 Delete 🔹 Upload
🖆 Tasks	File Name		Туре	Repeat	Status	Last Run Time
Im My Taske OTC Cash Apps Sangle Taske Sudhaka My Sorids My Soci	PROPERTIES	SCHEDULE TRIGGER				
	General					Description / Notes :
	Repeat	File Name :	Task Report			
☆ Workflows	Speed	Created at : Status :	Mouse Clicks Keystrokes	0		
ter vvorkilows	Notification	Last Run Time : View Log	Total Clicks	0		
	Hotkey	Priority (for queuing): Low				
	Security	Timeout (in minutes) :				
MANAGE		Enable this task to run with other similar files or window titles	0			

Fig. 6.3 : Task editor screen

• To run the bot, double tap on "MasterTask.atmx" or select "MasterTask.atmx" and snap on Run button which is appeared as featured in red.

🥚 New 💿 Record 🔻	🜔 Run 🌂	Edit				Search Help	یا 👫 ۲	
	OTC Cash Ap	ps						Delete 🗘 Uplo
🗖 Tasks	File Name MasterTask.atmx			Type Task F	ile	Repeat Do not Repeat	Status Complete	Last Run Time 06/25/2018 08:25
F OTC Cash Apps Sample Tasks > Subtexics My Scritts My Exet My Docs	PROPERTIES	SCHEDULE	TRIGGER					
	General							Description / Note
	Repeat	File Name : Created at :	MasterTask.atmx 05/09/2018 07:53:37		Task Report Mouse Clicks	0		
📽 Workflows	Notification	Status : Last Run Time : Priority (for queuin		View Log	Keystrokes Total Clicks	0		
	Security	Timeout (in minutes	s) : 0 🕥					

Fig. 6.4 : Task editor screen

• Client need to evaluate email from bot to know the status of document processed.

6.2 CREDENTIAL MANAGER LOGIN TO CR

AA head makes a client as "Credential Manager", who can just enter Outlook and access SAP with login accreditations of bot, while the secret phrase is entered the equivalent cannot be seen by anyone including AA overseer as it is scrambled.

While running the bot, the password identified with outlook and SAP are consequently picked from CR to perform activities.

• Launch Control Room.

Enter User Name: Medha and Password: ******

(Controlroom/		
Control	Room Login	
*Lisemame *Password]
	Login Forgot Password	
	Torgue Fassiona	

Fig. 6.5 : Control room login

• After logging into Control Room, click on Credential Manager(highlighted in Yellow)

	ev01. abn.net :8080/controlroom/		ρ → ငံ 💋 Publ-IT18-RPJ	Set-up-Analysi 🥑 Automation A	nywhere ×	- ■ × ↑ ★ 0
	e Control Room					? Yadav -
Repository Manager	Repository Manager					
Task Schedules Credential Manager	Repository Automation Anywhere	a) Hame	files in the selected folder		File Type	Size
		Fig. 6.6	: Credential m	anager		

• Select the procedure name which you need to change the password and afterward click on edit button which is featured in yellow.

	v01. alxn.net :8080/controlroom/	ク - C 🦉 Publ-IT18-RPA Se	et-up-Analysi 👩 Automation Anywhere	× 0 *
	Control Room			? Yadav -
Repository Manager	Credential Manager			
Task Schedules	OTC CASH APPS			
Credential Manager	Cash App's	Cash App's		
		ATTRIBUTE NAME Outlook SAP_TEST_RQS SAP_TEST_RDS SAP_PROD	ATTRIBUTE DESCRIPTION Robe_Id_UAT SAP_UAT SAP_DEV SAP_PROD	ATTRIBUTE VALUE

Fig. 6.7 : OTC cash apps

• Update the password in required fields like in Outlook and SAP and afterwards click on save.

	dev01.alxn.net:8080/controlroom/ RE Se Control Room		Set-up-Analysi 🛃 Automation Anywhere		radav -
pository Manager				•	uuuv -
	Credential Manager				
sk Schedules	OTC CASH APPS				
edential Manager		OTC CASH APP	S		
	Cash App's	Cash App's			
		ATTRIBUTE NAME	ATTRIBUTE DESCRIPTION	ATTRIBUTE VALUE	
		Outlook	Robo_Id_UAT	******	e
		SAP_TEST_RQS	SAP_UAT		e
		SAP_TEST_RD5	SAP_DEV	*******	e
		SAP_PROD	SAP_PROD		e
				Save Can	cel

Fig. 6.8 : Credential manager

6.3 CR ADMIN ACTIVITIES

Dashboard of CR: Administrator can see the dashboard for the enrolled customers. The dashboard indicates number of registered customers associated with control room, active clients, that is clients made in charge room, failed task in most recent 2 days, task in advancement, upcoming errands that are booked and store that is undertakings transferred in control room.

6.3.1 ADD/EDIT/DELETE USERS IN CR

Click on User Management tab on left panel to do these operations

• Add Users: In order to add a user click on "Actions" button then click on "Create user".

Dashboard	🕞 User Ma	anagement						
Repository Manager		5						Action
	User Name	First Name	Last Name	Email	Roles	Licenses	Action	
Operations Room	developer1	Chandra	Kayala	LVDChandra.Kayala@g	Developer	Development	Deactivate	*
	Michael	Michael	Salwen	michael.salwen@alexio	Credential_Manager		Deactivate	*
Jser Management	Yadav	Yadav	Y	yatheendranatha.yadav	Credential_Manager		Deactivate	*
	chandu	chandu	chandu	chandu@genpact.com	UAT	RunTime (TaskBots)	Deactivate	1
Audit Trail	chandu1	chandu1	chnadu1	chandu1@genpact.com	UAT	RunTime (TaskBots)	Deactivate	*
'ask Schedules lecurity lients								

Fig. 6.9 : User management window

Fill all the field with suitable data and in regards to role select proper role and add permit to the role by clicking "allocate license".

	Control Ro	om		
Dashboard	🕞 User Mar	nagement: C	reate User	
Repository Manager	User Name:			
Operations Room	First Name: Last Name:			
User Management	Email: Role:			~
Audit Trail	Password: Confirm Password:			
Task Schedules		Allocate License		
Security			Save and Add Another	Save
Clients				
Credential Manager				
App Management				

Fig. 6.10 : User management-Create user

Development license - Used to create, edit and run a bot.

Runtime license – Used to run a bot.

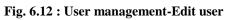
None – Used by clients who log in to CR for some other purpose.

License Allocation		×
O Development		
Runtime		
O None		
	Save	Cancel

Fig. 6.11 : Types of license

• Edit Users: In order to edit users click on \checkmark button as shown below. After that user can edit the details and then click on "SAVE" button to save the changes made.

AUTOMATION ANYWHER Enterprise	e Control R	oom					🔅 🕐 cradm	in -
Dashboard	🕞 User Ma	anagement						
Repository Manager								Actions •
	User Name	First Name	Last Name	Email	Roles	Licenses	Action	
Operations Room	developer1	Chandra	Kayala	LVDChandra.Kayala@g	Developer	Development	Deactivate	
	Michael	Michael	Salwen	michael.salwen@alexio	Credential_Manager		Deactivate	XX
User Management	Yadav	Yadav	Y	yatheendranatha.yadav	Credential_Manager		Deactivate	🛛 🔧 🗙
	chandu	chandu	chandu	chandu@genpact.com	UAT	RunTime (TaskBots)	Deactivate	🔹 🔧 🗙
Audit Trail	chandu1	chandu1	chnadu1	chandu1@genpact.com	UAT	RunTime (TaskBots)	Deactivate	🔨 🗙 🗙
Task Schedules Security								
Clients								
Credential Manager								
App Management								



To Delete User: In user management click on [★] button then click on "Yes" button for deleting the user.

Dashboard	🕞 User Ma	inagement						
tepository Manager		2						Actio
	User Name	First Name	Last Name	Email	Roles	Licenses	Action	
perations Room	developer1	Chandra	Kayala	LVDChandra.Kayala@g	Developer	Development	Deactivate	•
	Michael	Michael	Salwen	michael.salwen@alexio	Credential_Manager		Deactivate	•
ser Management	Yadav	Yadav	Y	yatheendranatha.yadav	Credential_Manager		Deactivate	•
	chandu	chandu	chandu	chandu@genpact.com	UAT	RunTime (TaskBots)	Deactivate	•
ıdit Trail	chandu1	chandu1	chnadu1	chandu1@genpact.com	UAT	RunTime (TaskBots)	Deactivate	•
sk Schedules								
curity								
sk Schedules curity ents edential Manager								



6.3.2 ROLES & RESPONSIBULITIES

Click on "Security" tab from left panel of Control Room. If user wants to create new role, user have to click on "Create New Role".

• Create New Roles: For creating new roles administrator have to click on "Create New Roles.

	Control Room	🗱 🕜 cradmin -
Dashboard		
Repository Manager	Create New Roles Role Name	
Operations Room	Admin Admin AnahitosConsumers	3 C 3 C
User Management	AnalyticsExperts Basic	3 C 3 C
Audit Trail	IQBolServices IQBotValidator	3 C 3 C
Task Schedules	Credental_Manager Developer UAT	く ① × く ① × く ① ×
Security		
Clients		
Credential Manager		
App Management		

Fig 6.14 : Create new user

• To create new roles administrator have to enter "Role Name" and assign the activities for that role. To assign activities administrator have to check the respective boxes and click on save button.

AUTOMATION ANYWHE Enterpris	se Control Room			🌣 📀	cradmin	÷
shboard	• Roles and Permissions: Create I	Role				
pository Manager	Role Name:					
erations Room	Permission		Repository Manager MetaBots Manager			
	Operations Room		Repository Manager: Folder Access Rights	Upload	Downlo	Delet
er Management	a 🔄 User Management		My Docs			
	🔚 Add User		My Exes			(***)
	3 Update User		My Lists			
lit Trail	🔁 Delete User		My Reports			
	a 🔄 Repository Manager		My Scripts			
< Schedules	\Xi Run		My Tasks		1000	1000
	E Force Unlock		My Workflow		1000	1000
	E Set Production Version					
urity	a 🔄 Task Scheduling					
	E Add Schedule					
nts	Update Schedule					
	Delete Schedule					
d	Manage All Schedules					
dential Manager	Clients Management					
	Roles and Permissions Management					
Management	E Audit Trail					
	a 🔄 Credential Manager					
	Add Credential					
	E Update Credential					
	E Delete Credential					
	License Management					
	Illocate License					
	IQ Bot					
	E Validator					
	a validator					

Fig 6.15 : Creating roles window

6.3.3 LICENSE MANAAGEMENT

To install/update new AA license, administrator have to click on 🐼 button, and then click on "License Management". Click on Install New License to upload the file.

	e Control	Room					🗱 📢 crac	lmin -
Dashboard	€ Licen	ise Managen	nent					
Repository Manager	Your license ex	xpires in 166 days.						
Operations Room	Client Us	sage Status		Install New Licer	👳 App Usage	Status		
	License Type		Purchased	Used	Applications	Purchased	Used	
ser Management	Development		1	1	Analytics			
	Runtime		2	2	Operational	Yes	No	
udit Trail	TaskBots		2	2	Business	No	No	
	IQBots		0	0				
ask Schedules	Metabots		0	0				
Security	License A	Allocation Roles		Status	Date and Time	Enable Auto L	.ogin Licenses	
lients	developer1	Developer		Registered	2018-05-08 09:48:58 C	\checkmark	Development	4
				Verified	2018-06-19 10:03:56 C			2
	Michael	Credential_Manag	jer	venned	2010-00-19 10:05:50 C			
redential Manager	Michael Yadav	Credential_Manag Credential_Manag		Verified	2018-07-03 07:28:49 C			4
redential Manager							RunTime (TaskBots)	4

Fig. 6.16 : License management window

Click on "Browse" to upload the license file and click on "Upload License" to activate the license.

6.3.4 EMAIL SETTING

This option is used to configure email settings through control room for sending/receiving mails.

• To enable or disable email settings administrator need to click on 🗴 button and then click "Control Room Settings".

Then select "Outgoing Mail Server Configuration". Select Enable for email configuration.

Now fill appropriate details like "from", "Host", "port" then click "Save changes".

CHAPTER 7 CREDIT PRESCREEN

7.1 PRESCREEN

Prescreen is a process by which a bank proactively assesses a purchasers record as a consumer so as to choose whether or not to offer them credit. The procedure of prescreening shoppers occurs without the purchasers learning and with no unfavorable impacts on their credit document. The thought behind prescreen is very straightforward. Rather than holding up of a client to request a credit item, banks can proactively screen a colossal cluster of buyers for a credit item and send pre endorsed offers to all who pass the banks prescreen criteria.

7.1.1 DIRECT MAIL PRESCREEN

The most widely recognized strategy for appropriating cluster prescreen offers is direct based mail. Mail prescreen, while convincing to certain customers simply doesn't speak to everybody. The printing and mailing of billions of post direct mail pieces a year contributes more than four million tons of paper.

7.1.2 INSTANT PRESCRREN

So as opposed to sending spontaneous prescreen offers to immense batcches of obscure shoppers, moment prescreen empowers banks to offer known clients significant credit items at whatever point those clients contact the bank. This technique will in general produce higher acknowledgment rates than direct mail prescreen.

7.2 OPTIMIZE YOUR CREDIT MARKETING DECISIONS

Prescreen enables us to:

- Make credit-based decisions for most present information in the market
- Employ customization and decisioning adaptability
- Maximize battle execution and gainfulness by focusing more successfully

7.3 BENEFITS

- Prevent future bad debt the existance of past poor installment and terrible obligation history is exceedingly prescient of future installment issues.
- Avoid the negative PR associated with rejecting individuals This especially important for association with a scope of items that you may wish to strategically pitch later on.
- Industry best practice it bodes well to abstain from advertising to people who are probably not going to have the option to take up an item or more awful, where the take-up of an item may make issues as far as indebtness.
- Lower acquisition costs there are noteworthy immediate and backhanded expenses related in offering items to people and the dismissing them at application arrange.

7.4 IMPLEMENTATION STEPS OF CREDIT PRESCREEN

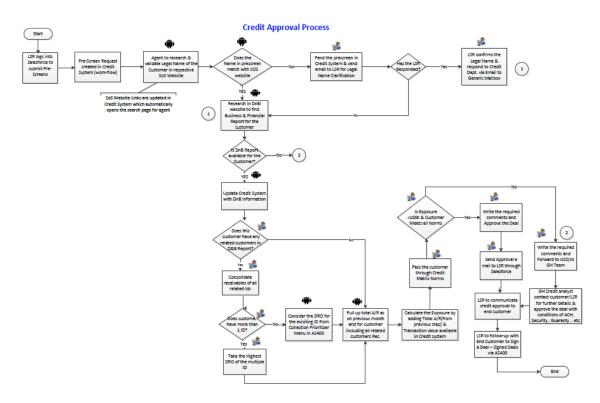


Fig. 7.1 : Credit Prescreen process

New Credit System - In order to process prescreen / deals in new Credit system below steps need to follow.

• The first step to process prescreen is to log in to web.penske.com with SSO login (5 series)

Intranet						

Fig. 7.2 : Login to site

 Once we enter Username and Password then it will take us to the main menu page as shown below. This will contain tools option where we need to login to <u>Credit System</u> <u>Request.</u>

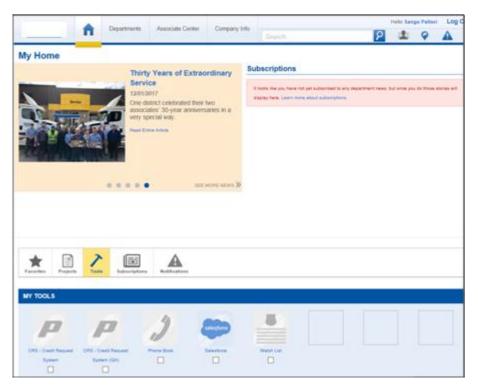


Fig. 7.3 : Homepage

• After clicking CRS-credit Request System we will enter in to main menu page with 2 options. Robot need to work under Credit Menu for Prescreens / deals where we have 3 different options again



Fig. 7.4 : Credit system page

Pending Deals – Used for Input mode to process a prescreen

• My Genpact Queue Deals – We will be able to see prescreens for which duplicate prescreen confirmation email is sent and WIP prescreens.

- All Genpact Queue Deals We will be able to see all the prescreens which are claimed and not decision by Genpact team.
- Unassigned Deals We get prescreens inflow in this field.

Deal Search – Used for View Mode

- Deal ID
- Customer ID
- Analyst
- DCN #
- Customer Name
- Status

Customer Search – Alternative Used for View Mode

- Customer ID
- Customer Name

 To process a deal / prescreen Robot will go to unassigned deal Queue click the check box near 1st deal / prescreen and claim it

								Assign Clair Search:				
id Name	Rework	DCN	Add Units	Replace Units	CM Units	Transaction Value	Type of Deal	Paydex	DRO	Customer Level	Received date	
2	N				0	0.0	Lease			0.0	02/15/2019	
	N				0	0.0	Lease			0.0	02/15/2019	
	N				0	0.0	Lease			0.0	02/15/2019	
	N				0	0.0	Lease			0.0	02/15/2011	
	N				0	0.0	Lease			0.0	02/15/2019	
	N				0	0.0	Lease			0.0	02/15/2019	
	N				0	0.0	Lease			0.0	02/15/2019	
	N				0	0.0	Lease			0.0	02/15/2019	
	N				0	0.0	Lease			0.0	02/15/2019	
	N				0	0.0	Lease			0.0	02/15/2019	

Fig. 7.5 : Unassigned deals window

- Once the deal / prescreen is claimed it will move to My Genpact Queue deals.
- Then bot will click on transaction id.
- Once bot will click transaction id it will get into the deal\ prescreen which need to be
 processed.

Lease or Rental ID for Customer

- If received deal \ prescreen without attached id it will copy the customer name available in Customer Information screen and will check in prime customer database with name for any lease or rental id available.
- If found any id with the name as received on deal\ prescreen form then will mention the same in comments.
- If received deal\ prescreen with attached lease id then will check in prime customer database with lease id if is reading same name as per deal \ prescreen form.
- If ID is reading same name as per deal\ prescreen form will processed further.

• If ID is reading different name will mention in comments stating "Prime customer name mismatch" and will not processed further and will send back to team.

Legal Name

- Legal name should be verified in respective Secretary State of website as per the state given in Address field in Customer Enquiry
- Will check for legal name and capture details (Date, entity Id, Status.. etc) in Comment section
- If Captcha is there will not be able to login, hence will be skipped and moved ahead with other details

DRO & REC

- Once lease or rental id is confirmed for the customer it will capture DRO & Rec from the excel sheet provided by FPNA Team. (DnB Report)
- It will check for D&B report from DnBi.
- Search report for customer from the state received and will consider if found with complete name as per the prescreen form
- If found multiple or Incomplete name reports for customer will not consider the report as research is involved and mention the same in comments.
- If branch and Headquarter report is there it will take HQ report

Existing Fleet & Check Fuel

- BOT will check the box for fuel option for equipment request given
- Capture the existing fleet from the database provided by FP&A for lease accounts
- If the Request is for Replacement and the customer does not have any units then Bot will not check fuel as it will throw Error

Once Bot update all the fields it will move to next deal from unassigned deals.

FUTURE SCOPE

RPA or Robotic Process Automation is the most recent innovation in the field of creation and man-made brainpower. It is convenient and has picked up a gigantic a measure of accomplishment and acknowledgment in a matter of seconds. RPA can oversee straightforward just as a touch of entangled undertaking with no human association. This implies it can complete an undertaking like hopping and swapping between various applications. Mechanical autonomy Process Automation is the need of great importance and is an extremely prevalent exchange for somebody in the IT business. With RPA there is a great deal of things that you can manage without moving a solitary finger. This innovation has brought forth a standout amongst the best employment arranged course within recent memory. Before long RPA specialists will turn into the most astounding procuring individuals in the IT business. In this way, in the event that we need to search for an effective and cash situated vocation in IT then RPA is the decision. RPA is one such quiet upheaval in the IT business that is all around expected to increase higher potential as far as both use and workforce execution in not so distant future.



Fig. 8.1 : Future scope

REFERENCES

- [1] https://en.wikipedia.org/wiki/Robotic_process_automation
- [2] https://www.softwaretestinghelp.com/robotic-process-automation-tools/
- [3] https://www.quora.com/Which-is-the-best-RPA-tool
- [4] https://en.wikipedia.org/wiki/Robotic_process_automation#Historic_evolution
- [5] https://www.edureka.co/blog/what-is-robotic-process-automation/
- [6] https://www.guru99.com/robotic-process-automation-tutorial.html
- [7] https://www.itproportal.com/features/7-rpa-myths-busted/
- [8] https://blog.aimultiple.com/robotic-process-automation-use-cases/
- [9] http://www.experian.com/consumer-information/credit-prescreening.html
- [10] https://en.wikipedia.org/wiki/Prescreen
- [11] https://en.wikipedia.org/wiki/Prescreen#Direct_Mail_Prescreen
- [12] https://www.qedgetech.com/blog/future-scope-for-robotic-process-automation/