

iOS App Developer

Internship report submitted in partial fulfillment of
the requirement for the degree of Bachelor of
Technology

In

Computer Science and Engineering/Information Technology

By

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An Internship Report with regard to Winzo Games Internship.

ACKNOWLEDGEMENTS

This is a matter of pleasure for me to acknowledge my deep sense of gratitude to Jaypee University and my college, Jaypee university of information technology for giving me an opportunity to explore my abilities via this internship program. I would like to express my sincere gratitude to our TnP officer, Mr. Pankaj Kumar and our faculty Coordinator, Dr. Nafis U Khan for this opportunity. I also wish to express my gratitude to my internship supervisor, for their valuable guidance and advice in completing this project.

I would like to record my sincere appreciation and gratitude towards all the officials and employees of winzo, without whose kind assistance, my internship program would not have succeeded. The facts and other vital information provided by them have contributed towards making this report as comprehensive as possible. I am indeed thankful to them.

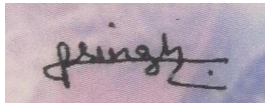
Last but not the least, I would like to express my sincere thanks to all my family members, friends and well-wishers for their immense support and best wishes throughout the internship duration and the preparation of this report.

I believe that this report will be a valuable asset not only for academic institution, but will also be useful for all those who are interested to learn about internship experiences in gaming origin.

CANDIDATES DECLARATION

I hereby declare that the work presented in this report entitled “**Internship Report**” in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology in Computer Science and Engineering/Information Technology** submitted in the department of Computer Science & Engineering and Information Technology, Jaypee University of Information Technology Waknaghat is an authentic record of my own work carried out over a period from Feb 2021 to May 2021 under the supervision of Mr. Rishabh Gupta.

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

A small rectangular image showing a handwritten signature in black ink on a light-colored background. The signature appears to be 'Gurpreet Singh'.

Gurpreet Singh (181009)

This is to certify that the above statement made by the candidate is true to the best of my knowledge.

Mr. Rishabh Gupta

Dated: 21/05/21

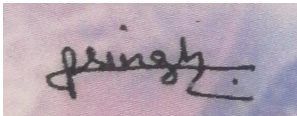
PROJECT REPORT UNDERTAKING

I, Mr. Gurpreet Singh, Roll No. 181009, Branch - Information Technology is doing my internship with WinZo Games from 04-02-22 to 30-06-22.

As per procedure I have to submit my project report to the university related to my work that I have done during this internship.

I have compiled my project report. But due to COVID-19 situation my project mentor in the company is not able to sign my project report.

So, I hereby declare that the project report is fully designed/developed by me and no part of the work is borrowed or purchased from any agency. And I'll produce a certificate/document of my internship completion with the company to TnP Cell whenever COVID-19 situation gets normal.



Signature

Name: Gurpreet Singh

Roll No.: 181009

Date: 31-05-2022

ABSTRACT

As iOS developer intern in WinZo, we started our training in Swift language for first 15 to 20 days and the total amount of training period varying from 10 weeks to 12 weeks, includes various events such as educational workshops, project orientation, and group work assignments.

WinZO Games is the popular social gaming and leisure platform in India, Launched in early 2018 the Company companions with 0.33-celebration builders to host games on its personal Android and iOS app, wherein users can experience personalized multiplayer gameplay experiences. WinZO Games gives a wide variety of popular video games from PubG to cricket, rummy, and extra, which make up an enviable collection of one hundred+ games that rewards the users online.

TABLE OF CONTENTS

Contents	Page No.
ACKNOWLEDGEMENT	i
PROJECT REPORT UNDERTAKING	ii
ABSTRACT	iii
LIST OF FIGURES	v
CHAPTER 1. ORGANIZATION	1
1.1 Background	1
1.2 Mission, Vision, Values and Objectives	2
1.3 Ice-breaker	3
CHAPTER 2. INTERNSHIP PROGRAM SEQUENCE	5
2.1 Stage-1 SWIFT Language Learning	5
2.2 Stage-2 Swift core and Api	7
2.3 Web, UI and Data source	10
CHAPTER 3. SOFTWARE REQUIREMENT SPECIFICATION (SRS)	16
CHAPTER 4. FEATURES AND BUGS RESOLVED TILL NOW	18
CHAPTER 5. CONCLUSIONS	28
REFERENCE	29

CHAPTER 1: ORGANIZATION

1. Background:

After the end of 7th semester, various company visited to our college for the placement of the student, one such company was Winzo Games, due to my good fortune, I was selected for iOS Developer profile, after selection, I was offered a internship by the Winzo games before the full time role and completing internship is necessary for the full time role in the winzo. The internship was of around 12 weeks containing various sessions, webinar and project.

WinZO Games is the popular social gaming and leisure platform in India, Launched in early 2018 the Company companions with 0.33-celebration builders to host games on its personal Android.

Winzo offers various role in the company like develop, product Designer, QA and HR Manager in the company, but, before becoming the Developer every person should complete the intern period.

Winzo also provided stipend during the internship period which is around 23 thousand per month to the interns pursuing internship.

The internship period varies and depends on the roles, which the intern gets, like someone who got developer profile, for them internship period will be of around 3-4 months and for the quality insurance, it might vary from 5-6 month.

The domain allocation is random in the Winzo for the interns, student selected in particular profile gets the feedback based on the performance during the internship period after that student get to work in the particular domain.

2. Mission, vision, values and objectives



Mission – Winzo mission is to train every fresh person who got selected in to the Winzo. Winzo Games provide internship to every person who got selected in the Winzo Games.

Winzo train college fresh out students before giving them the desired role. This recruitment is happening on a good number as the winzo growing.

Winzo spends much time, ownership and money in training the intern before giving them the actual work and before them to work in the real environment.

Vision - The winzo games vision is to train every fresh out student recruited form the college no matter from which college the persons come.

Values

The values of the organization are as follows:

- *Valuing People*

We agree with that our fulfillment depends first and predominant on people. By respecting human beings in the whole lot we do, we will broaden and preserve excessive first-class, collectively useful relationships with our clients, expert colleagues, referral assets, providers, network individuals and every other.

- *Building Reliable and User friendly product*

We searching for to earn lengthy-time period client loyalty with the aid of growing a deep expertise of each client's business and personal desires, by means of demonstrating unwavering reliability and integrity in our paintings and by means of appearing as an independent and objective consultant to our clients.

- *Upholding Quality and Integrity*

We will hold an surroundings wherein a dedication to first-rate, honesty, recognize, equity and professional ethics governs the moves and decisions of anyone within our firm.

Keys to Success:

- Complete the work with full honesty.
- Complete the work on time.
- Complete the assessment.
- Complete the project within schedule time.
- Try to learn as much as possible from the seniors.



- Open to learn anything taught.

Objectives:

The objectives of winzo are:

- The overall objective is to focus the activities towards its iOS and android platform and to become the best in the gaming origin.
- Growth - To expand the business at a rate this is both challenging and plausible, serving the marketplace with innovation and flexibility.

1.3. Ice breaker

Week 1:

- Corporate induction.
- Talent Manager connect.
- winzo Agenda session on cores values.

Week 2:

- Behavior Skills.
- Agile Workshop.
- Dev-Ops Workshop.
- Behavior session.

IceBreaker



Fig. 1: Ice Breaker

CHAPTER - 2

INTERNSHIP PROGRAM SEQUENCE

1. Stage 1 – SWIFT Language Learning

I was inducted as a team member in my cohort then, this swift language learning started, this testing fundamentals consist of a 15 days training in which we have to learn basics of swift language from the documentation and other resources and do various hands-on.

Week 1:

- SWIFT LANGUAGE.

In this week we all have to do is to complete one Udemy courses suggested by winzo assigned buddy during the internship, complete the hands-ons, assessment, and to complete the demo project.

In this week 1 we learned the basics concepts of swift language .

After we completed the online Udemy courses, we did the hands-ons and completing the hands- on is mandatory for every intern and then, after completing the hands-ons we use to make practice to code in swift language and submit those codes I got to learn about API connectivity , json parsing and submit it on time, after that we have given the code challenges which we need to again submit for the calculation of the in the final overall performance.

Below is the sample of code challenges given to us of the testing which was done during the training.

 variables.swift

```
1 var a = 5
2 var b = 8
3
4 var c = a
5 a = b
6 b = c
7
8 print("a: \(a)")
9 print("b: \(b)")
10
11
12
```

Challenge 1

 randomisation.swift

```
1
2
3
4 let alphabet = ["a","b","c","d","e","f","g","h","i","j","k","l","m","n","o","p","q","r","s","t","u","v","w","x","y","z"]
5
6 //The number of letters in alphabet equals 26
7
8 var password = alphabet[Int.random(in: 0...25)] + alphabet[Int.random(in: 0...25)] + alphabet[Int.random(in: 0...25)] +
9
10 print(password)
```

Challenge 2

arrays.swift

```
1  let numbers = [45, 73, 195, 53]
2
3  //Create a new array called computedNumbers
4  var computedNumbers = [
5      numbers[0] * numbers[1],
6      numbers[1] * numbers[2],
7      numbers[2] * numbers[3],
8      numbers[3] * numbers[0]
9  ]
10
11
12 print(computedNumbers)
```

Challenge 3

1. Stage 2- Swift core and Api

Week2,3,4:

- Programming with swift with json
- Behavioral skills

In this week we all have to do is to complete Udemy courses suggested by the winzo assigned buddy during the internship, complete the hands-ons, assessment, and the project work with introduction to the API's and its connectivity.

In this week 2 we learned the core swift language part from scratch with the help of the Udemy courses and winzo assigned buddy guide queries.

After we completed the online Udemy courses, we did the hands-ons and completing the hands- on is mandatory for every intern and then, after completing the hands-ons we use to give assessment and problems or project related to the learning we have done in the whole week, a small project whose performance were taken into account, for the calculation of the in the final overall performance.

The most important part of this week was covering all the basis aspects of the core swift and learning about api and json parsing from scratch because learning swift and json is very important in application development..

This element changed into very lengthy as it was 2 week long, and we started out from core fast to develop the speedy part additionally, connecting small middle rapid with database via json parsing.

These 2 weeks were very essential because of the fact we determined out very important things on this 2 weeks, the very important, that very developer ought to recognise for developing utility.

We did around 30 palms-ons on this element, the arms-ons were very lengthy and hard on this component.

The maximum critical issue in those 2 weeks was fundamentals of center swift. We learned center fast from basics and overlaying all elements of the swift, its capabilities, it's uses and a way to develop an utility from scratch with the help of the fast and connecting with database through json parsing.

Json parsing changed into very crucial component in this 2 weeks because very application calls for the database connectivity, and that's most effective viable with the of the database connectivity via json.

We discovered all components of the json parsing, all kinds of the Database and connecting information inside the iOS utility using get and publish api in the database and additionally retrieving the facts from the database the usage of few strains of the codes.

Connecting to the database is very crucial inside the application improvement and is also the essential element in the utility development.

Our trainer taught various techniques and architectural way of writing code in swift and json parsing with that knowledge should be known to very iOS developer who is working with the application development.

We also learned Storyboard interface builder used to build iOS apps which are very essential in making UI friendly iOS application it would we not possible to make a good looking app without storyboard.

Below is the sample example of few lines of the codes to store data and retrieve from the table form database.

```
14 func fetchWeather(cityName: String) {
15     let urlString = "\(weatherURL)&q=\(cityName)"
16     self.performRequest(urlString: urlString)
17 }
18
19 func performRequest(urlString: String) {
20     if let url = URL(string: urlString) {
21         let session = URLSession(configuration: .default)
22         let task = session.dataTask(with: url) { (data, response, error) in
23             if error != nil {
24                 print(error!)
25                 return
26             }
27             if let safeData = data {
28                 parseJSON(weatherData: safeData)
29             }
30         }
31         task.resume()
32     }
33 }
```

JSON Parsing

Week-4(continuity)

Auto Layout and Responsive UI

After completing few technologies, we had Integrated capability test, in which we combine our all knowledge what we learned in past swift, json, and try to solve whole long coding question.

Integration of UI and date ,which include all the things what we had learned till now.

Auto Layout permits us to set rules as to how we want our views to be displayed. Because cellular monitors have extraordinary resolutions and sizes, we need those guidelines to inform the iPhone/iPad the way it need to layout all of the elements in the storyboard onto the display. These policies allow our UI factors to be resized and located so that regardless of which display they may be displayed on, they usually look because the designer intended.

It includes the large weightage in the usual overall performance, the overall performance is calculates because the average of the evaluation, Integrated functionality test, Business unit score, Project rating.

We get tries to present the incorporated capability check, if we get failed in first attempt then, we get 2d try to provide incorporated functionality check.

And the second attempt is the closing try to Integrated functionality test due to the

fact failing in the 2d attempt can lead to the termination of the provide stated by means of the HR within the one session.

3. Stage 3 – UI, and Data source

Week 5:

- Working With Safe Area , auto layout, xml

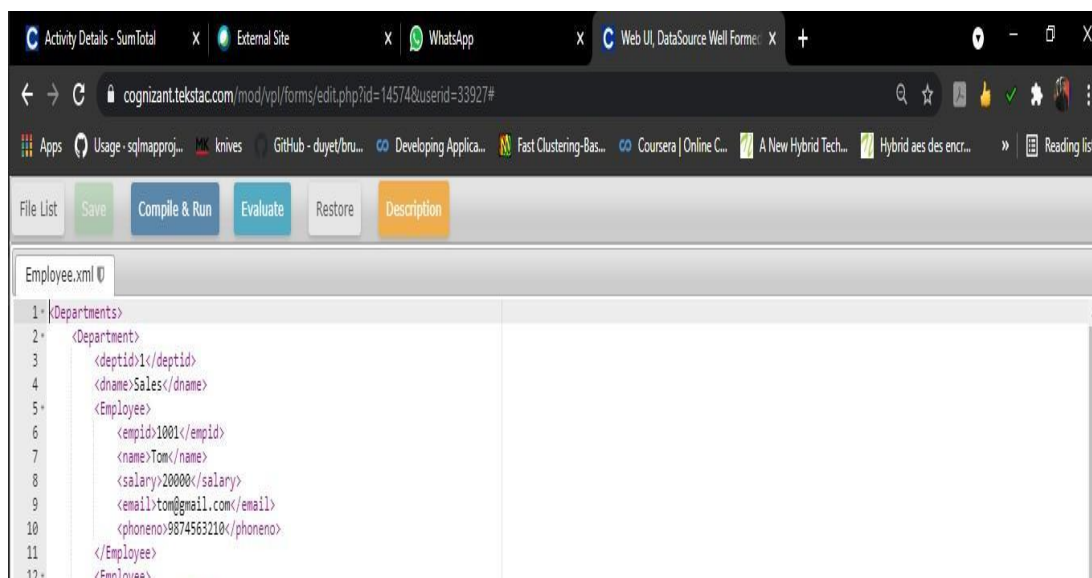
The intention became to take one step in addition to your journey of turning into an app developer. We are going to introduce you to the holy grail of cell layout styles: the Model View Controller (MVC) pattern. A layout pattern is definitely a repeatable and optimised way to a common software trouble and we've study more approximately this in the internship.

XML is a markup language that defines a set of policies for encoding documents in a layout that is both human-readable and gadget-readable. The World Wide Web

Consortium's XML 1.Zero Specification of 1998 and several other related specs—all of them unfastened open standards—define XML.

The layout dreams of XML emphasize simplicity, generality, and usefulness across the Internet Several schema systems exist to resource in the definition of XML-based languages, at the same time as programmers have advanced many software programming interfaces (APIs) to useful resource the processing of XML statistics..

Below is the sample XML code.



The screenshot shows a web browser window with several tabs. The active tab is titled 'Web UI, DataSource Well Forme'. The address bar shows the URL 'cognizant.tekstac.com/mod/vpl/forms/edit.php?id=14574&userid=33927#'. Below the address bar, there are several icons for various applications and services. The main content area of the browser displays a text editor with the following XML code:

```
Employee.xml
1 <Departments>
2   <Department>
3     <deptid>1</deptid>
4     <dname>Sales</dname>
5     <Employee>
6       <empid>1001</empid>
7       <name>Tom</name>
8       <salary>20000</salary>
9       <email>tong@gmail.com</email>
10      <phoneno>9874563210</phoneno>
11    </Employee>
12  </Department>
```


Week 6:

- iOS development
- UICollectionView , Storyboard.

In this week we all have to do is to complete Udemmy courses provided by the winzo during the internship, complete the hands-ons, assessment, and to complete the weather app project also.

In this week we learned the designing part from scratch with the help of the storyboard and various iOS tools and also learned about Xcode used for iOS app development .

After that you upload a set view on your consumer interface, your app's primary task is to control the statistics associated with that collection view. The collection view gets its records from the statistics source object, stored within the collection view's dataSource property. For your information source, you can use a UICollectionViewDiffableDataSource item, which affords the behavior you need to absolutely and efficiently manage updates in your series view's facts and person interface. Alternatively, you could create a custom facts supply object by means of adopting the UICollectionViewDataSource protocol.

In addition to its cells, a collection view can present data the use of other types of views. These supplementary perspectives may be, as an example, phase headers and footers which are cut loose the person cells but nevertheless deliver statistics. Support for supplementary views is non-obligatory and defined by means of the gathering view's format object, which is also chargeable for defining the position of these views.

Besides embedding a UICollectionView on your user interface, you use the methods of the collection view to ensure that the visual presentation of objects suits the order for your information source item. A UICollectionViewDiffableDataSource item manages this manner automatically. If you're the usage of a custom records supply, then whenever you upload, delete, or rearrange facts on your series, you operate the strategies of UICollectionView to insert, delete, and rearrange the corresponding cells.

You also use the gathering view item to control the selected items, despite the fact

that for this behavior the gathering view works with its associated delegate object.

```

let cellRegistration = UICollectionView.CellRegistration<UICollectionViewListCell>()

var contentConfiguration = cell.defaultContentConfiguration()

contentConfiguration.text = "\(item)"
contentConfiguration.textProperties.color = .lightGray

cell.contentConfiguration = contentConfiguration
}

```

Collection View

```

dataSource = UICollectionViewDiffableDataSource<Section, Int>(collectionView: collectionView) {
    (collectionView: UICollectionView, indexPath: IndexPath, itemIdentifier: Int)

    return collectionView.dequeueConfiguredReusableCell(using: cellRegistration,
                                                         for: indexPath,
                                                         item: itemIdentifier)
}

```

Collection View 2

Week 7, 8:

- TableView and Data source.

In this week we all need to do is to complete Udemey guides furnished by using the Winzo in the course of the internship, entire the palms-ons, evaluation, and to complete the incorporated capability take a look at additionally.

In this week 2 we learned about desk view shows a single column of vertically scrolling content, divided into rows and sections. Each row of a table presentations a unmarried piece of statistics associated with your app. Sections permit you to institution associated rows together. For instance, the Contacts app uses a desk to show the names of the person's contacts.

Table perspectives are a collaboration between many distinct gadgets, including:

Cells. A cell affords the visible illustration on your content. You can use the default cells provided with the aid of UIKit or outline custom cells to suit the desires of your app.

Table view controller. You normally use a UITableViewController object to manage a table view. You can use other view controllers too, however a table view controller is required for a few table-associated features to paintings.

Your records source item. This item adopts the UITableViewDataSource protocol and offers the records for the desk.

Your delegate item. This object adopts the UITableViewDelegate protocol and manages consumer interactions with the desk's contents.

```

var hierarchicalData = [[String]]()

override func numberOfSections(in tableView: UITableView) -> Int {
    return hierarchicalData.count
}

override func tableView(_ tableView: UITableView,
                        numberOfRowsInSection section: Int) -> Int {
    return hierarchicalData[section].count
}

```

Table View implementation

```

var hierarchicalData = [[String]]()

override func numberOfSections(in tableView: UITableView) -> Int {
    return hierarchicalData.count
}

override func tableView(_ tableView: UITableView,
                        numberOfRowsInSection section: Int) -> Int {
    return hierarchicalData[section].count
}

```

Table View Continuation

CHAPTER - 3

SOFTWARE REQUIREMENT SPECIFICATION (SRS)

- **Cocoa-pods**

CocoaPods is a dependency manager for Swift and Objective-C Cocoa initiatives. It has over 90 thousand libraries and is utilized in over three million apps. CocoaPods will let you scale your tasks elegantly.

- **Xcode**

Xcode consists of the whole lot developers need to create excellent packages for Mac, iPhone, iPad, Apple TV, and Apple Watch. Xcode offers developers a unified workflow for user interface layout, coding, checking out, and debugging. The Xcode IDE mixed with the Swift programming language make developing apps smooth and a laugh.

Xcode is Apple's included development surroundings for macOS, used to broaden software program for macOS, iOS, iPadOS, watchOS, and tvOS. It become to start with launched in overdue 2003; the state-of-the-art strong release is version 13.4, launched on May 16, 2022, and is available through the Mac App Store freed from fee for macOS Monterey users.

- **Git**

At a high level, GitHub is a internet site and cloud-primarily based service that helps builders save and manipulate their code, in addition to music and control changes to their code. To understand precisely what GitHub is, one must understand connected principles:

- Version control
- Git

- **Unity Hub**

The Unity Hub is a standalone software that streamlines the manner you find, download, and control your Unity Projects and installations. In addition, you could manually upload versions of the Editor that you have already installed to your gadget for your Hub.

we can use the Hub to:

Manage Unity account and Editor licenses.

Create Project, associate a default model of the Unity Editor with the Project, and manage the installation of more than one versions of the Editor.

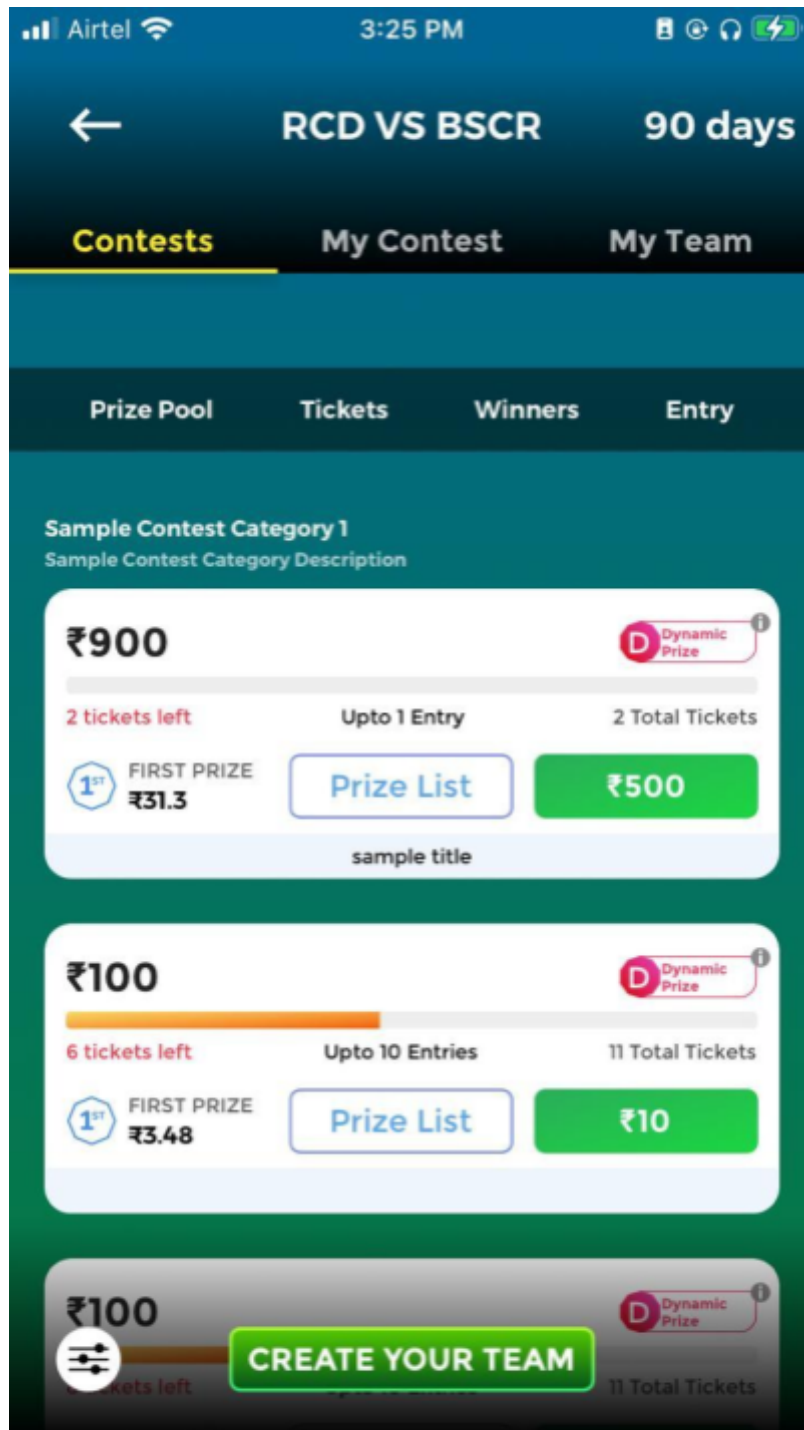
Launch exclusive variations of Unity out of your Project view.

Manage and pick out Project construct goals with out launching the Editor.

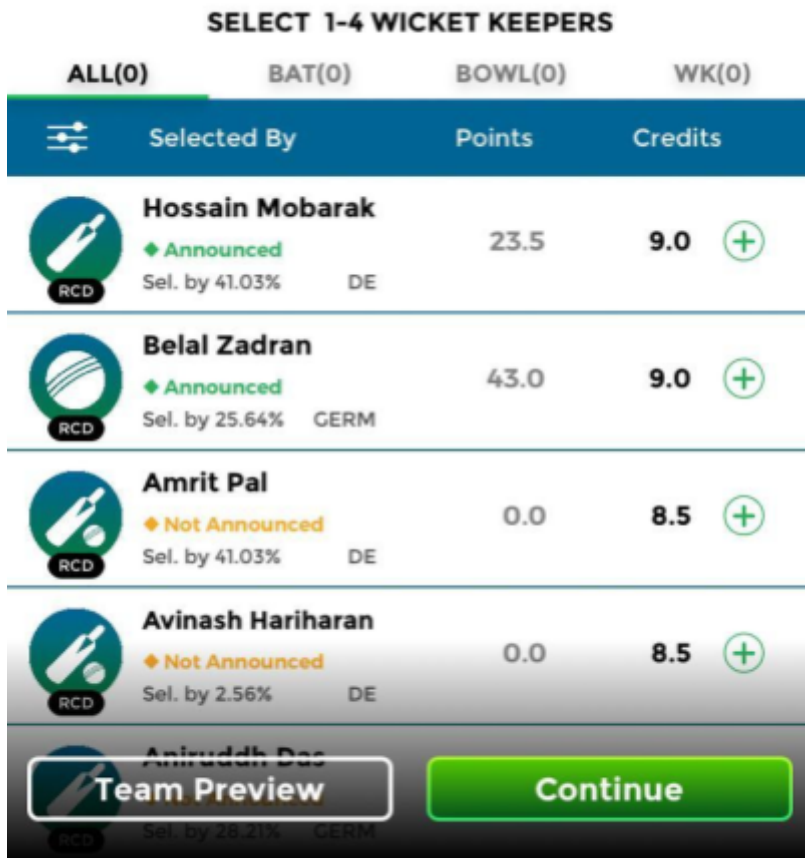
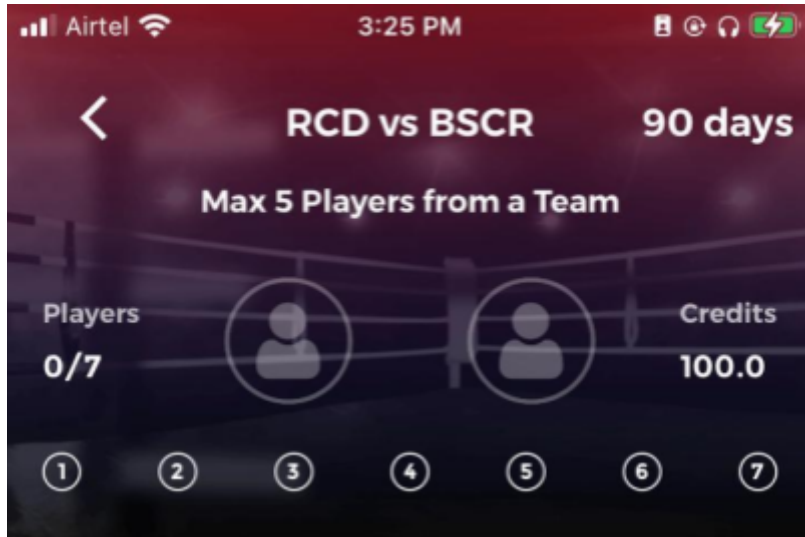
- **Jira**

Jira Software is a part of a circle of relatives of products designed to help teams of all types manipulate work. Originally, Jira was designed as a work and difficulty tracker. But these days, Jira has evolved right into a effective work management device for all types of use cases, from necessities and take a look at case management to agile software development. It is used to assign everyday task and to keep track of man hours and particular task in winzo.

CHAPTER - 4
FEATURES AND BUGS RESOLVED TILL NOW



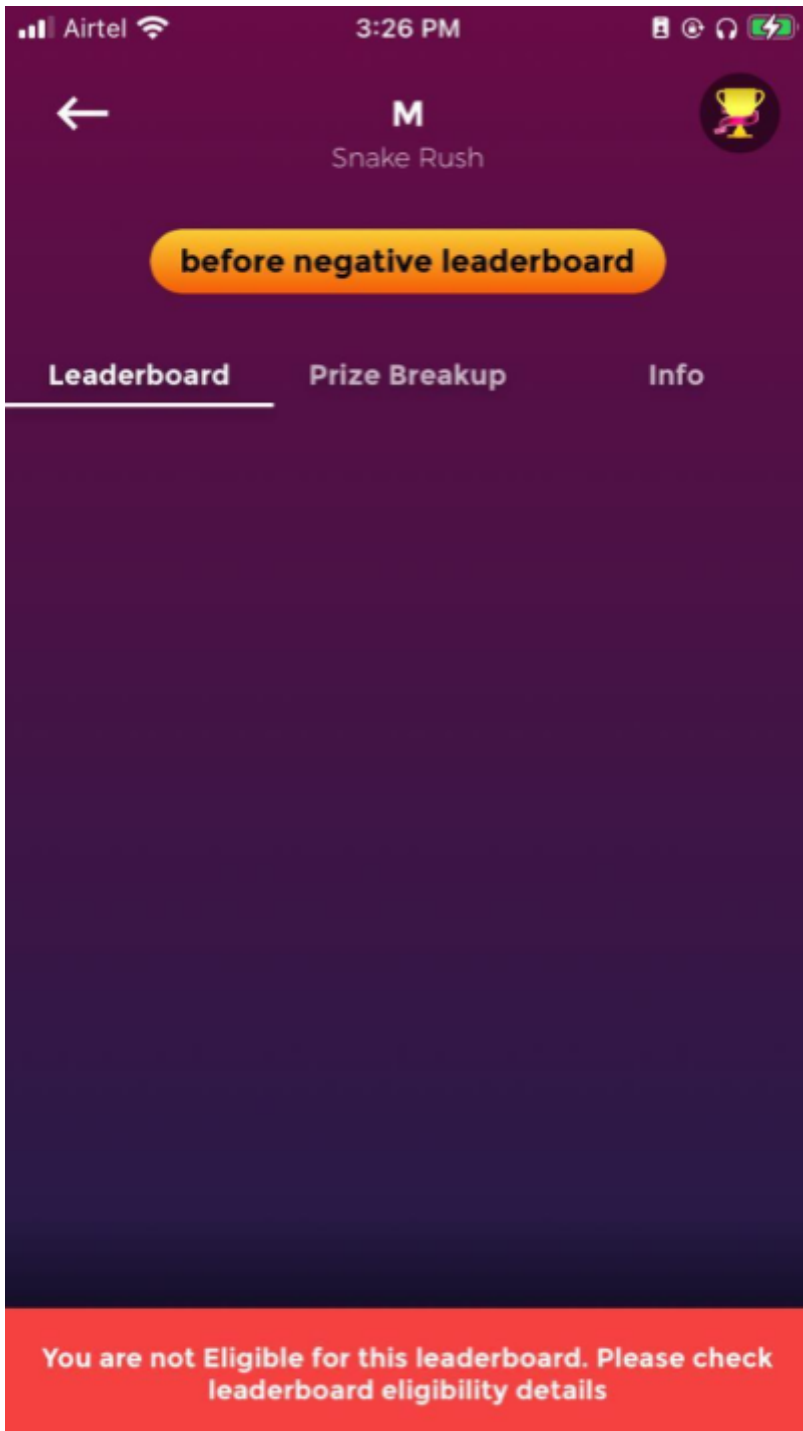
FANTASY GAMING FEATURE



CREATING TEAM FEATURE

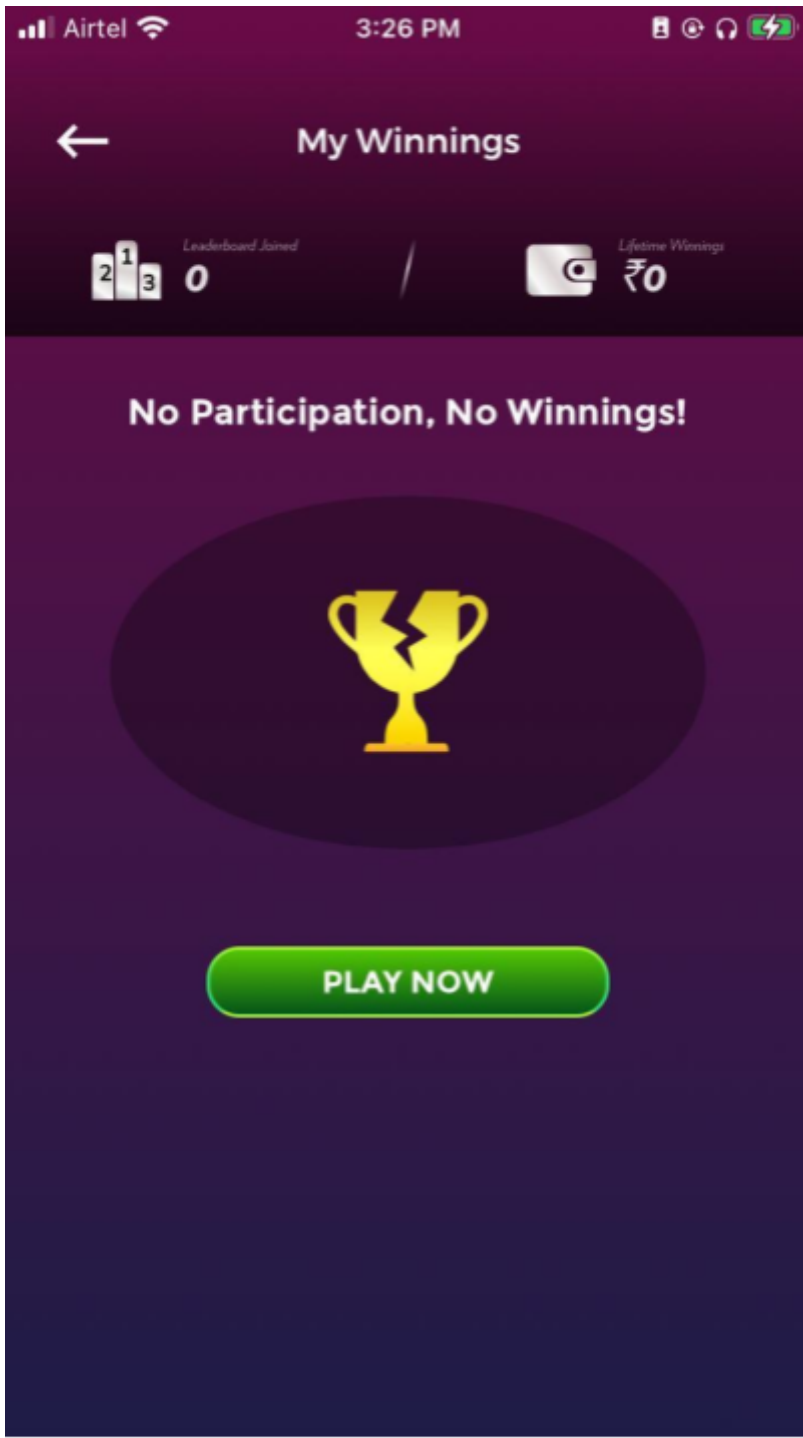


GAME BOOT LOADER



GENERIC LEADERBOARD





GENERIC LEADERBOARD 2

Worked on Viewed **Assigned to me** (27) Starred

IN-DEVELOPMENT

 **Error message missing from home screen incase of disconnection** In-Development
WGIOS-874 · WinzoGold-iOS

IN-TEST

 **Refining tap area experience across iOS app** IN-TEST
WGIOS-753 · WinzoGold-iOS

READY-FOR-RELEASE

 **When user is eligible, sky-blue strip is showing up at the bottom, where the alert message shows up.** Ready-For-Release
WGIOS-986 · WinzoGold-iOS

 **Central LB Page Update** Ready-For-Release
WGIOS-973 · WinzoGold-iOS

 **Clevertap - New events to be created** Ready-For-Release
WGIOS-933 · WinzoGold-iOS

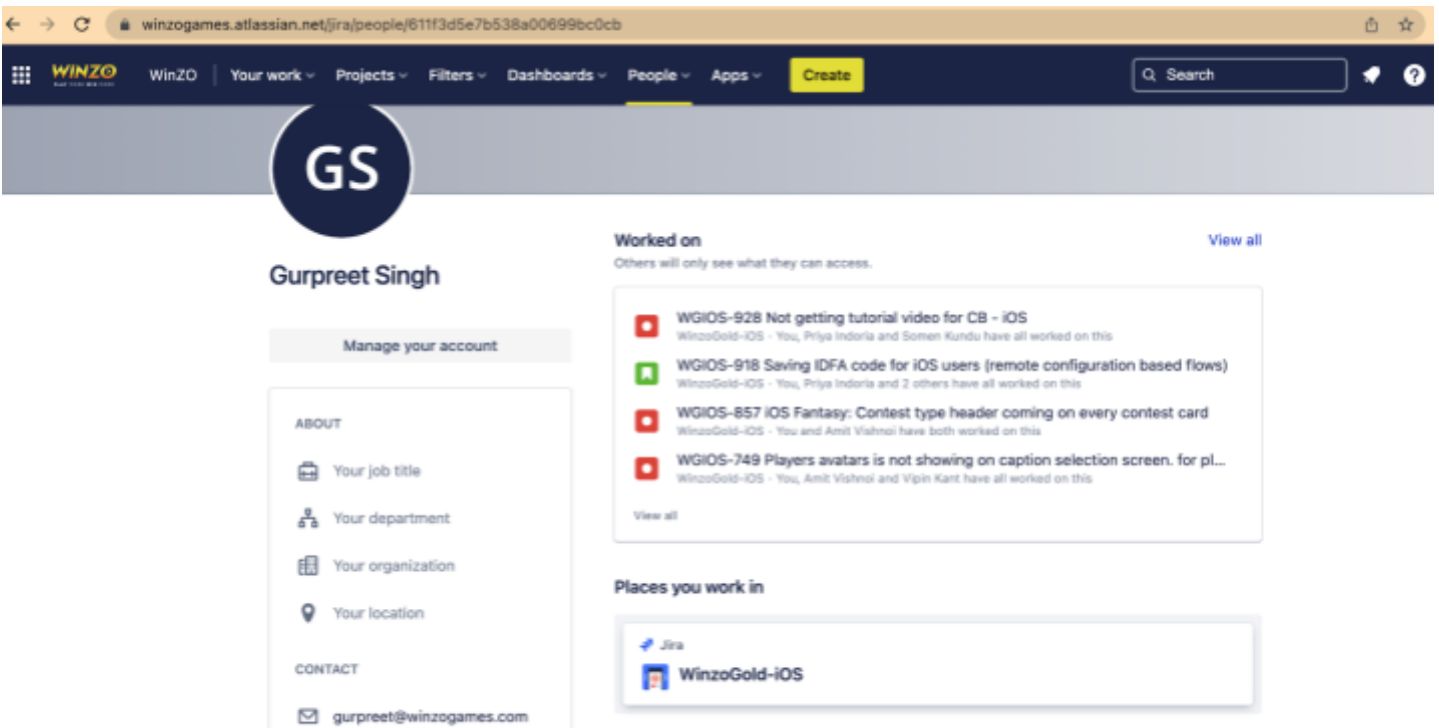
 **Event creation for State Selection in iOS App** Ready-For-Release
WGIOS-926 · WinzoGold-iOS

 **Clevertap - Events not active for iOS but for Android to be made active for iOS** Ready-For-Release
WGIOS-925 · WinzoGold-iOS

JIRA ASSIGNMENTS DONE TILL DATE

	Clevertap Events - Discarded earlier to be recreated in iOS WGIOS-924 - WinzoGold-IOS	Ready-For-Release
	Saving IDFA code for iOS users (remote configuration based flows) WGIOS-918 - WinzoGold-IOS	Ready-For-Release
	Passing add cash value to appsflyer sdk WGIOS-900 - WinzoGold-IOS	Ready-For-Release
	Saving IDFA code for iOS users (App Launch API) WGIOS-892 - WinzoGold-IOS	Ready-For-Release
	Screen not developed for Disconnection on Vip points history WGIOS-890 - WinzoGold-IOS	Ready-For-Release
	No error message on disconnection screen for Redeem points WGIOS-889 - WinzoGold-IOS	Ready-For-Release
	Setting up iOS postback copies to Appsflyer for iOS 15+ WGIOS-888 - WinzoGold-IOS	Ready-For-Release
	Team tags for players in the My team WGIOS-880 - WinzoGold-IOS	Ready-For-Release
	Screen overlapping on disconnection on loyalty screen WGIOS-878 - WinzoGold-IOS	Ready-For-Release
	Error text missing on Disconnection while spinner's spinning WGIOS-896 - WinzoGold-IOS	Ready-For-Release

JIRA ASSIGNMENTS



The screenshot shows a Jira profile page for Gurpreet Singh. The header includes the Winzo logo and navigation tabs like 'Your work', 'Projects', 'Filters', 'Dashboards', 'People', and 'Apps'. A search bar is visible on the right. The profile section includes a 'Manage your account' button and an 'ABOUT' section with fields for job title, department, organization, and location. The 'CONTACT' section shows the email address gurpreet@winzogames.com. The 'Worked on' section lists four tickets: WGIOS-928 (Not getting tutorial video for CB - iOS), WGIOS-918 (Saving IDFA code for iOS users), WGIOS-857 (IOS Fantasy: Contest type header coming on every contest card), and WGIOS-749 (Players avatars is not showing on caption selection screen). The 'Places you work in' section lists Jira and WinzoGold-IOS.

JIRA PROFILE

CHAPTER -5

CONCLUSION

5.1 Conclusion

I am still on the way doing my internship with the winzo and I have learned so much from this internship, helped me in shaping my personality and equipping me with the knowledge of this technologies.

My Final internship project is still remaining with winzo internship and I will give my best in doing the internship project.

I like to thanks earlier to the coaches, winzo assigned buddy and mentor, lead of iOS crew in winzo who guided me via the entire journey of my internship in winzo and solved all my doubts at some stage in the internship. The coaches, winzo assigned pal, mentor and lead of iOS team in winzo have been all of correct nature and at every moment helped me once I changed into doing wrong and formed me all through my entire internship.

Specially the my assigned buddy gave his more attempt all through the internship and handed our all question to the higher authority in the company whether it became associated with the reattempt of the evaluation, technical problem confronted inside the evaluation or supplying greater time to finish the work.

I would highly recommend my juniors once to prepare well for the offer in the Winzo Games and get the internship opportunity form the Winzo because Winzo is top fortune company in the Indian gaming origin.

I like thank you my TNP officer Mr. Pankaj Kumar and Faculty member Dr. Nafis U khan sir for their support and hard work during the whole placement process because I know how complex is the management of the placement drive.

REFERENCES

- Winzo Hand book
- Internship experience
- Assessment
- Apple Documentation