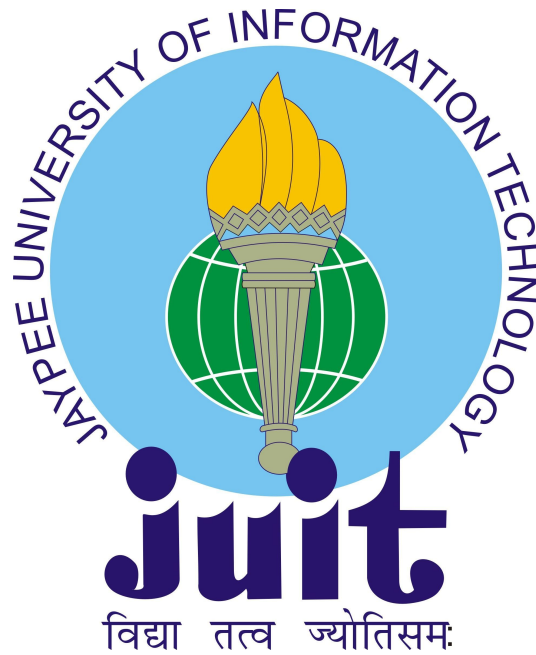


SCHOLARSHIP TESTS
(INTERNSHIP REPORT)

Enrol. No. - 181206
Name of Student - Prakhar Pandey
Supervisor - Dr. Yugal Kumar (Associate Professor)



May - 2022

Submitted in partial fulfilment of the Degree of
Bachelor of Technology
In
Computer Science Engineering

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING &
INFORMATION TECHNOLOGY
JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, SOLAN

DECLARATION

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except wheredue acknowledgement has been made in text.

Date: 30 May 2022

Name:

Prakhar Pandey

Enroll. No:

181206

CERTIFICATE

This is to certify that Prakhar Pandey was working as an intern with Textbook since 7th February 2022 on developing different product related feature and also integrating various tools. This letter was issued on request from the employee and the company bears no responsibility or liability on behalf of the employee for any transaction that may arise.

Name of Supervisor: Prashant Mohta

Designation: Team Lead

Date: 27th May

ACKNOWLEDGEMENT

I have taken efforts in this internship. However, it would not have been possible without the kind support and help of many peers and organisation. I would like to extend our sincere thanks to all of them. I am highly indebted to Mr. Prashant Mohta for his guidance and constant supervision as well as for providing information regarding the internship and also for their support in completing the projects given during internship. My thanks and appreciations also go to our colleagues in developing the project and people who have willingly helped us out with their abilities.

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Chapter 1: Introduction

1. General Introduction

I want to prepare for government exams but “Why government exam preparation is so expensive ?”, " Why no defined path is available easily ?" asked by everyone before becoming an aspirant. Testbook.com and the people working in the firm have been trying to make it easy for everyone. Testbook is a Mumbai based company, providing education to those preparing for Government exams. Doesn't matter whether you have a personal computer or mobile, Company provide a platform for all and giving ease of use to every user. Even some of the cities have offline centers to operate the platform.

Internships are the major part in academics where students get hands on experience which they are craving from past few years of college life. Testbook.com offered me this chance by giving me an internship as a software development Engineer.

Main goal of this internship is to make us a industry ready. We are provided with tasks, initially most of them were bugs fixes. The difficulty of task increase according to the performance chart of the intern which also helped interns to know their progress. Culture in the company always made intern feel like they are the part of family. Regular scrum meetings are the part of daily work followed by Team meet. I was assigned to the front end team making me work not only on the front-end logic but also thinking about product and user experience, so that every user coming on website should feel familiarity with the platform.

2. Problem Statement

Most of the people planning to give government exams doesn't know where to start and moreover most of them doesn't have enough funds to support the cost of expensive coaching institute. These expenses not only include tuition but also the living cost because most of the people planning are not from big cities where these coaching are, which force them to shift to that location. Sometimes student also get in the trap of chasing wrong institute where they face a lot of issues like no doubt session, number of practice tests are not enough, quality of content provided is poor and availability of good teachers etc. These issues kill lot of dreams.

3. Solution Approach

Testbook.com and people working in the firm try to eliminate above mentioned issues by providing best platform for students planning to take government exams. There are courses specific to every government exam with variety of tests and quizzes. Test interface provided is also very comfortable for the user even if they don't know how to use one. Facilities like previous year paper and doubt section also helps students in various ways. Response of the team is very fast if someone have a query related to course or they want a refund etc. Features like scholarship Tests are also helping students who don't have enough funds but want to study. Being Front-end developer in the firm, I worked closely to the product and help the company with various User experience enhancement as well as developing a feature from scratch.

Chapter 2: Technologies and Software used

1. Angular 9

Angular is a framework which makes developing front-end of website a piece of cake. Doing component based work is quite better than other ways because if components are made after pre-thinking then they can be reusable. Service and other facilities help us to keep components clean by putting extra work related to API-like things outside the component.

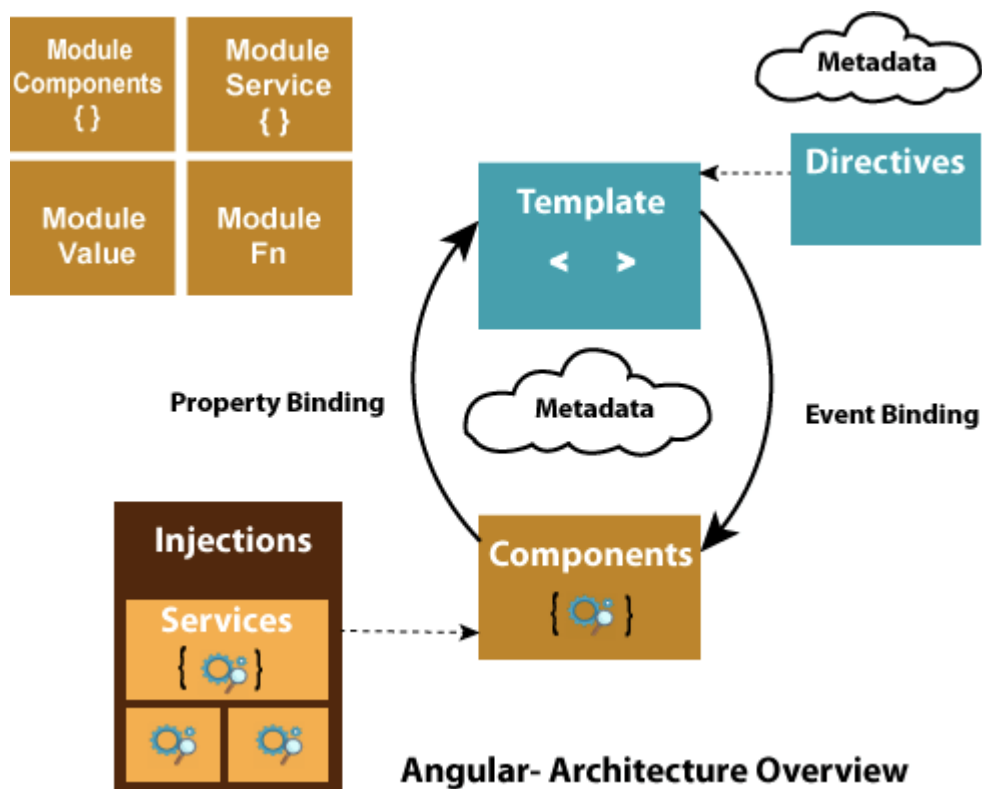


Fig 1. Angular Architecture Overview

The new features that were introduced with Angular 9 were:-

- 1) Smaller bundle sizes and augmented performance
- 2) Faster testing
- 3) Better debugging
- 4) Improved CSS class and style binding
- 5) Improved type checking
- 6) Improved build errors
- 7) Improved build times, enabling AOT on by default
- 8) Improved Internationalisation
- 9) The Ivy compiler: The default use of the Ivy compiler is the most important feature of Angular 9, Ivy is what actually designed to solve the major problems of Angular i.e the performance and large file size
- 10) Selector-less bindings support for Angular Ivy
- 11) Support for TypeScript Diagnostics Format
- 12) Support for more scopes in providedIn
- 13) A New Type-Safe TestBed.inject() Method Instead of TestBed.get()
- 14) Improvements to differential loading
- 15) AOT compilation everywhere
- 16) Bundle sizes
- 17) Globalisation
- 18) Additional provider scopes
- 19) Improved developer experience
- 20) New debugging API in development mode
- 21) Strict mode
- 22) Improved component and directive class inheritance
- 22) Latest TypeScript versions
- 23) Improved server-side rendering with Angular Universal
- 24) Improved styling experience
- 25) Stable Bazel release as opt-in option
- 26) Angular Components
- 27) Testing

2. Angularjs

AngularJs is a javascript framework used for making single page website but it is comparatively quite slow if compared with angular but quite seamless which makes it easy to use with there libraries. Working with angularjs doesn't require you to do extra arrangement, just include a script and everything done.

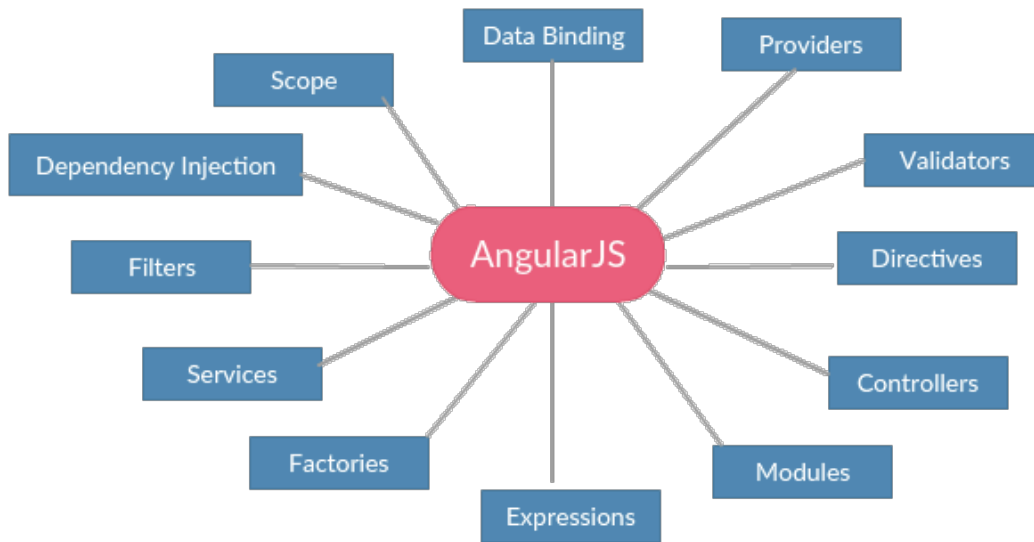


Fig 2. Angularjs

3. VS code

Visual studio code is one the best and free code editor and also provides with various functionality like support for debugging, highlighting syntax , code completion in an intelligent way and also comes with git.

4. Slack

Slack is a software used for business communication and also have some exciting features like private groups, and direct messaging etc.

5. Asana

Asana is application which helped different teams (B.E, F.E etc) to organize the bugs and tasks, helps in tracking them, and managing the work.

The screenshot shows the Asana interface for a project titled "Angular latest version testing". The left sidebar contains navigation options like Home, My Tasks, and various team and bug reports. The main area displays a list of tasks under the "Bugs Web" section. One task, "Super courses don't have any data", is highlighted. A tooltip "Move tasks between sections" is visible over the task list. The right panel shows details for the selected task, including a description with a URL and a comment section.

The screenshot shows the "My Tasks" view in Asana. The task list is organized into columns for "Task name", "Due date", and "Projects". The tasks listed are:

Task name	Due date	Projects
Rate the video modal is missing when I click on		Angular latest version te...
Know more button is not working from free live class series		Angular latest version te...
Take screenshot button is not working		Angular latest version te...
CTA of You have joined this series is not working properly		Angular latest version te...
All Past classes redirected to home page		Angular latest version te...
Super courses don't have any data		Angular latest version te...
Course curriculum is missing in Goal		Angular latest version te...
No data is available from header from select course		Angular latest version te...
masterclass changes		Khargh... Monet...
Live chat promotion for select/skill Web		Khargh... Monet...
Banner change for the course promotion in Skill Academy Exam pages		Kharghar Knight Riders
Reminder set button changes to Remind Me after changing the super group		Web release

6. NgRx

NgRx is a framework developed to work in redux in angular. It helps to create store which act as a single source of truth for every component, helps in removing extra code from components and putting it in store. State map can be tracked using chrome's redux plugin.

- 1) Shared: state that is accessed by many components and services.
- 2) Hydrated: state that is persisted and rehydrated from external storage.
- 3) Available: state that needs to be available when re-entering routes.
- 4) Retrieved: state that must be retrieved with a side-effect.
- 5) Impacted: state that is impacted by actions from other sources.

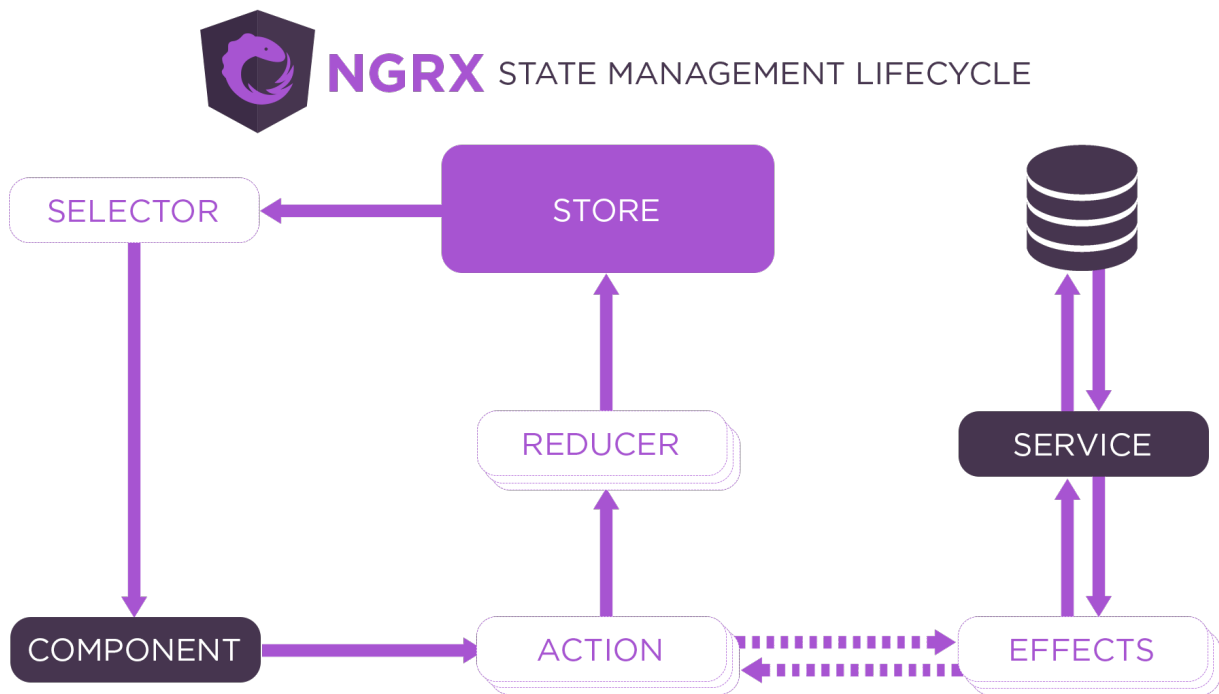


Fig 3. NgRx

7. PHP

PHP is a server side scripting language which is used by putting in HTML. It has various uses like managing dynamic content, getting or setting data in databases, to track the session. Whole e-commerce website can be made using php

8. ReactJs

Reactjs is a javascript library making creation of User interface very easy. Reactjs works on component based architecture and it is so seamless that it can be integrated with any other framework. After the introduction of hooks in 2019 react community increased rapidly. Functional component are now first preference for developers.

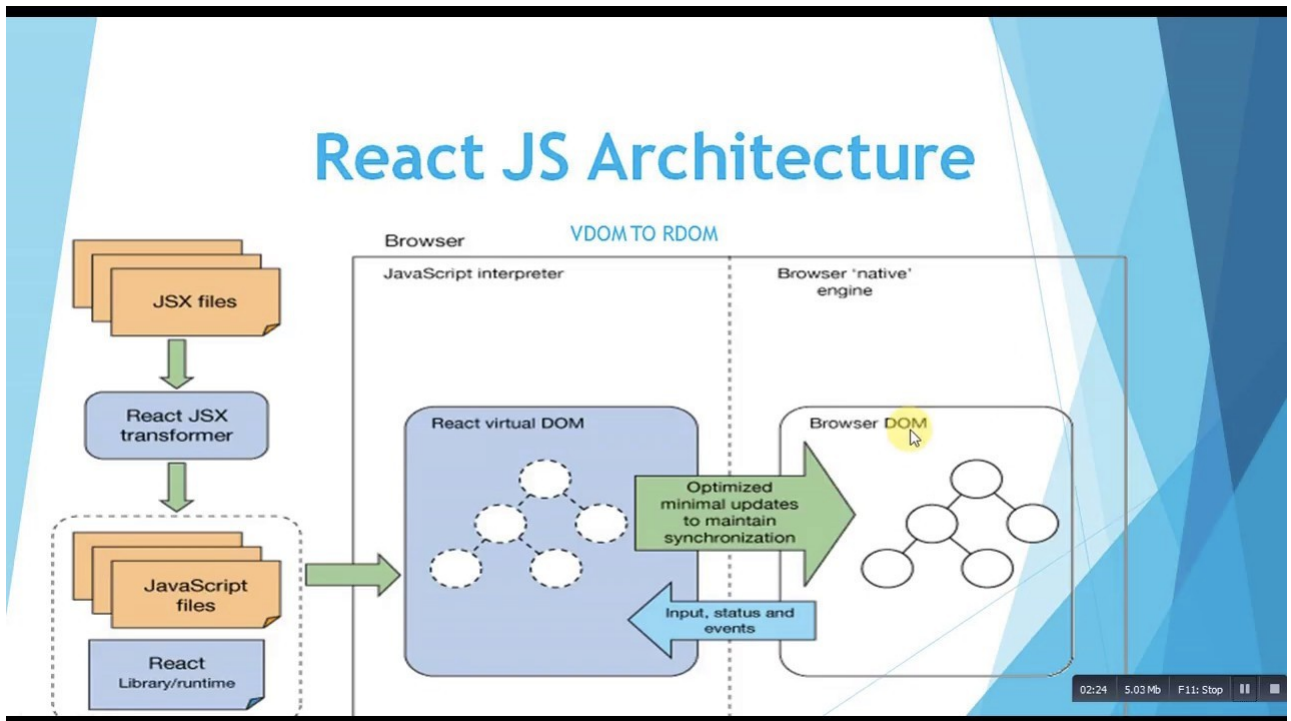


Fig 4. React Js

Chapter 3: Task Assigned Details

1. Tb_token removal from cookie (bug fix 1)

Tb_token is used in the flow to identify whether user is logged in or not. Current issue is that this tb_token even after logging out remains in the cookie causing various threat to user account.

This issue gets bigger when we account those offline centers where lot of people use single computer

Task was to identify every point in the code when user user do logged out so that whenever user is logging out then this key must be cleared from cookie. This task took around 2 days to identify the point of exist and clearing cookie keeping in mind that these removal don't cause breaking offlow.

Generic functions were made for this clearing of cookies .

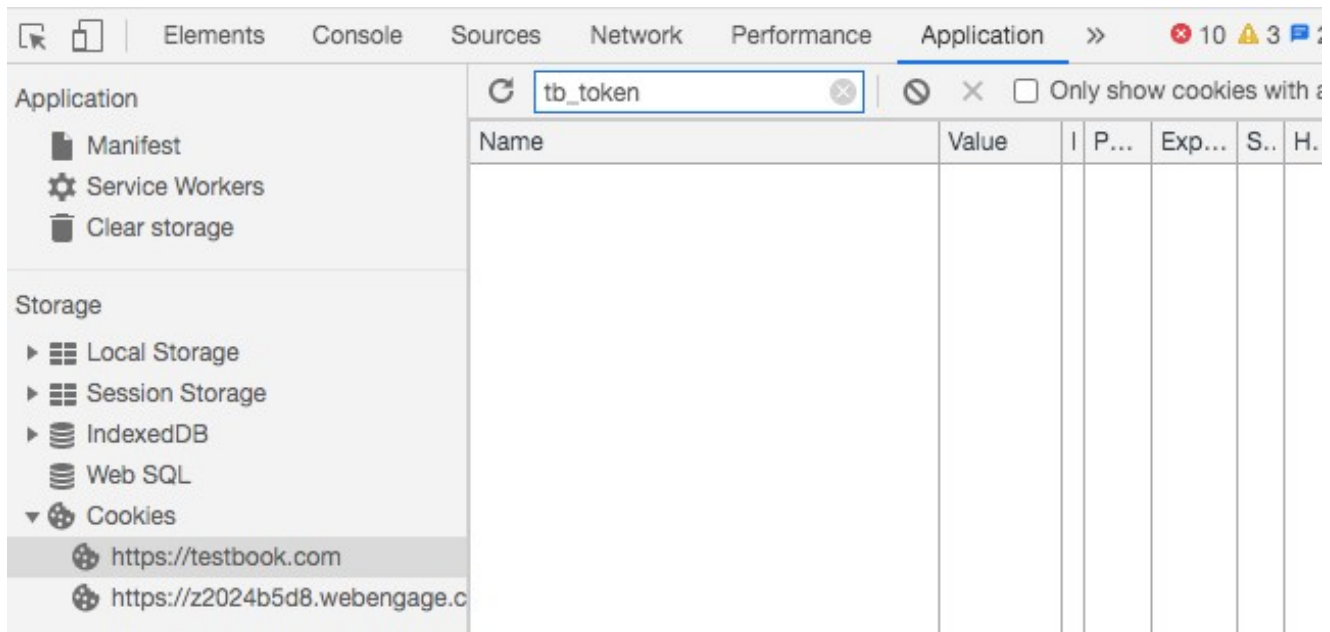


Fig 5. tb_token in logged out state

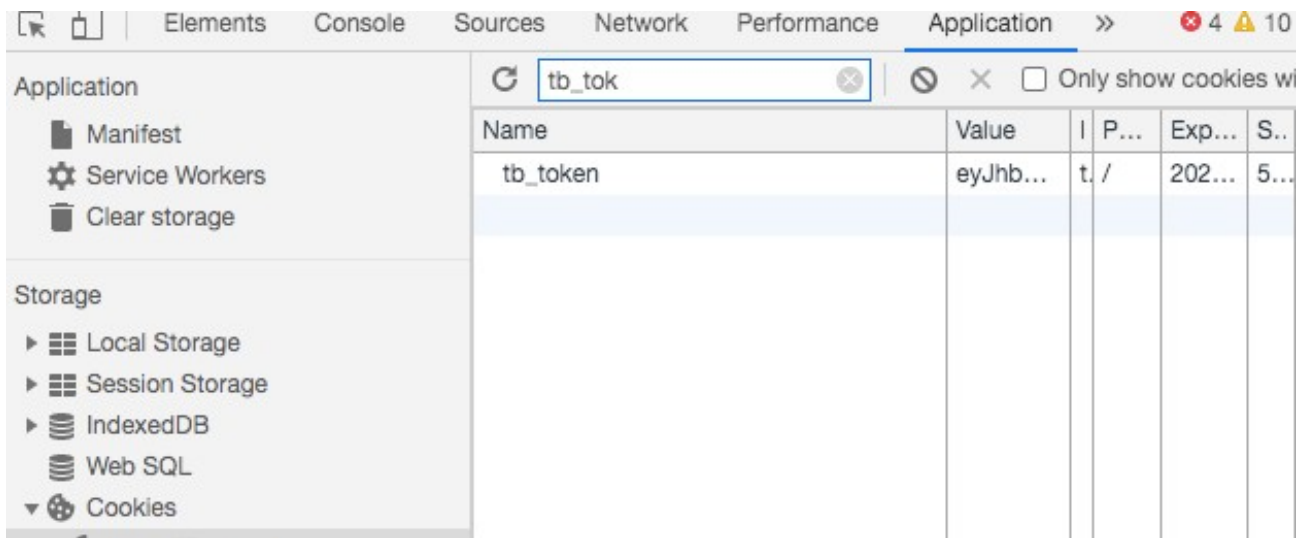


Fig 6. *tb_token* in logged in state

2. coupon_used and payment_failed events

Events are obj with various keys, they are Pushed to dataLayer so that data team can get details about user activity on website which is quite crucial. Events help us to track the user who might be interested in product and who might get interested after some marketing. Regular stats of users can also help the product team to understand which product is getting more attention and where to improve.

Coupon_used is fired when user type any coupon code in the coupon-model. Coupon-model is opened on various pages so data send in the event varies from page to page which helps to identify on which product users are interested to apply coupon now a days. Other help which we get is that which coupon is trending nowadays and for failed cases we set successes false key in event obj.

Payment_failed event is fired when user tries to buy something on platform. There are various ways to pay so this event helps us to identify on which payment method are failed because of backend fault because a failed method can cause a lot of loss. It also tells which method is quite popular among users.

⚠ Issues detected. The new Issues tab displays information about deprecations, breaking changes and other potential problems.

Go to Issues

```

> dataLayer
< (12) [{"...}, Arguments(3), {...}, {...}, {...}, {...}, {...}, {...}, {...}, {...}, n, {...}, hide:
  {...}, push: f] ⓘ
  ▶ 0: {gtm.start: 1623528882420, event: "gtm.js", gtm.uniqueEventId: 15}
  ▶ 1: Arguments(3) ["event", "optimize.callback", {...}, callee: f, Symbol(Symbol...
  ▶ 2: {sid: "5f4fd04354f090583ffb3c45", fname: "Siddharth", lname: "Kandola", e...
  ▶ 3: {event: "page_ready", gtm.uniqueEventId: 43}
  ▶ 4: {event: "gtm.dom", gtm.uniqueEventId: 102}
  ▶ 5: {event: "send_product_ids", info: {...}, gtm.uniqueEventId: 109}
  ▶ 6: {gtm.start: 1623528885959, event: "gtm.js", gtm.uniqueEventId: 122}
  ▶ 7: {event: "gtm.click", gtm.element: a.ng-scope.ng-binding, gtm.elementClass...
  ▶ 8: {event: "gtm.linkClick", gtm.element: a.ng-scope.ng-binding, gtm.elementC...
  ▶ 9: {event: "gtm.load", gtm.uniqueEventId: 156}
  ▼ 10: n
    event: "coupon_used"
    gtm.uniqueEventId: 163
    ▼ info:
      client: "web"
      couponCode: "HVHJHB"
      currency: "INR"
      discountValue: 0
      finalAmount: 474
      isSuccess: false
      page: "PassPage"
      pagePath: "/pass"
      productCost: 474
      productId: ""5e86159ff60d5d03fdacda95", "59b2a30ee5db553dae255787", "5e861...
      productName: ""Monthly Testbook", "Yearly Test Pass", "Yearly Testbook", "L...
      productType: "GlobalPass"
      ▶ __proto__: Object
      ▶ __proto__: Object
    ▶ 11: {event: "gtm.click", gtm.element: div.modal.coupon-modal, gtm.elementCla...
    ▶ hide: {GTM-MTDQQL: false, start: 1623528882412, end: null, timeout: 3000}
    ▶ push: f ()
    length: 12

```

Fig 7. coupon_used pushed in data-layer

Major difficulty faced while doing this task is that for coupon_used event changes are to be done in 2 different flows of code i.e angular and angularjs, data to be sent from one framework to other is also challenging. Most of the data is coming from backend but not set in flow which also consumed a lot of time.

3. Paytm method removed (bug fix 2)

While doing the above task, it was noticed that paytm method is not working in the flow and it might take time to fix it in flow which made it necessary to remove the paytm method from payment model.

Impact of not working method is that it can cause a loss of potential customer because someone opening payment model might be there to buy something and if user is confused and unfortunately he/she selects paytm and it doesn't work then user might leave the page causing loss to company.

4. Popular Exam Section

Task is to add popular exam section to index page and unlike other things on index page it should be backed driven because product team want them to change in regular interval of time. Separate component is created for this section. Significance of showing popular exam on index page to draw attention of users interested in those exams that when they see this exam name, they might get excited to see what is in it which will take them to target page having all the details

Benefits of having dynamic data is that now you don't have to change the code and do those manual works when some requirement comes up is gone. Here we also planned to take benefits of server side rendering and caching the data so that every time when user reloads the page we don't have to fire the API because firing API a lot of times can decrease the speed of the web page.

Flow followed while getting this data is of ngrx. Action is dispatched on ngOnInit which goes to effects for getting data, then reducers put it into store and the component gets it using selectors.

```
▶ 7: {event: "gtm.load", gtm.uniqueEventId: 174}
▶ 8: {gtm.start: 1623531654907, event: "gtm.js", gtm.uniqueEventId: 181}
▶ 9: {event: "gtm.click", gtm.element: button.btn.promo-footer__button, gtm.el...
▼ 10:
  event: "interested_in_passes"
  gtm.uniqueEventId: 207
  ▼ info:
    hasActivePass: undefined
    hasExpiredPass: undefined
    hoursLeft: ""
    inGroup: false
    isLoggedIn: true
    isMobileVerified: false
    page: "PassPage"
    pagePath: "/pass"
    partner: ""
    productCategory: "GlobalPass"
    ▶ __proto__: Object
    ▶ __proto__: Object
▶ 11: {event: "gtm.click", gtm.element: div.ui-close.ng-scope, gtm.elementClas...
▶ hide: {GTM-MTDQQL: false, start: 1623531641559, end: null, timeout: 3000}
▶ push: f ()
  length: 12
▶ __proto__: Array(0)
```

Fig 8. Popular exam section

5. Interested in Passes event

Task to fire interested_in_passes event whenever the pricing-model opens. There are lot of point where we offer user to get a pass and main catch of this event is to get what type of event user prefer for what type of product. This event object have data related to product, page on which itis fired and this might help us in knowing the customer interested in passes as the name suggest

This change is also to be done in both the flows but data is not shared which makes it easy but finding firing points also took lot of time.

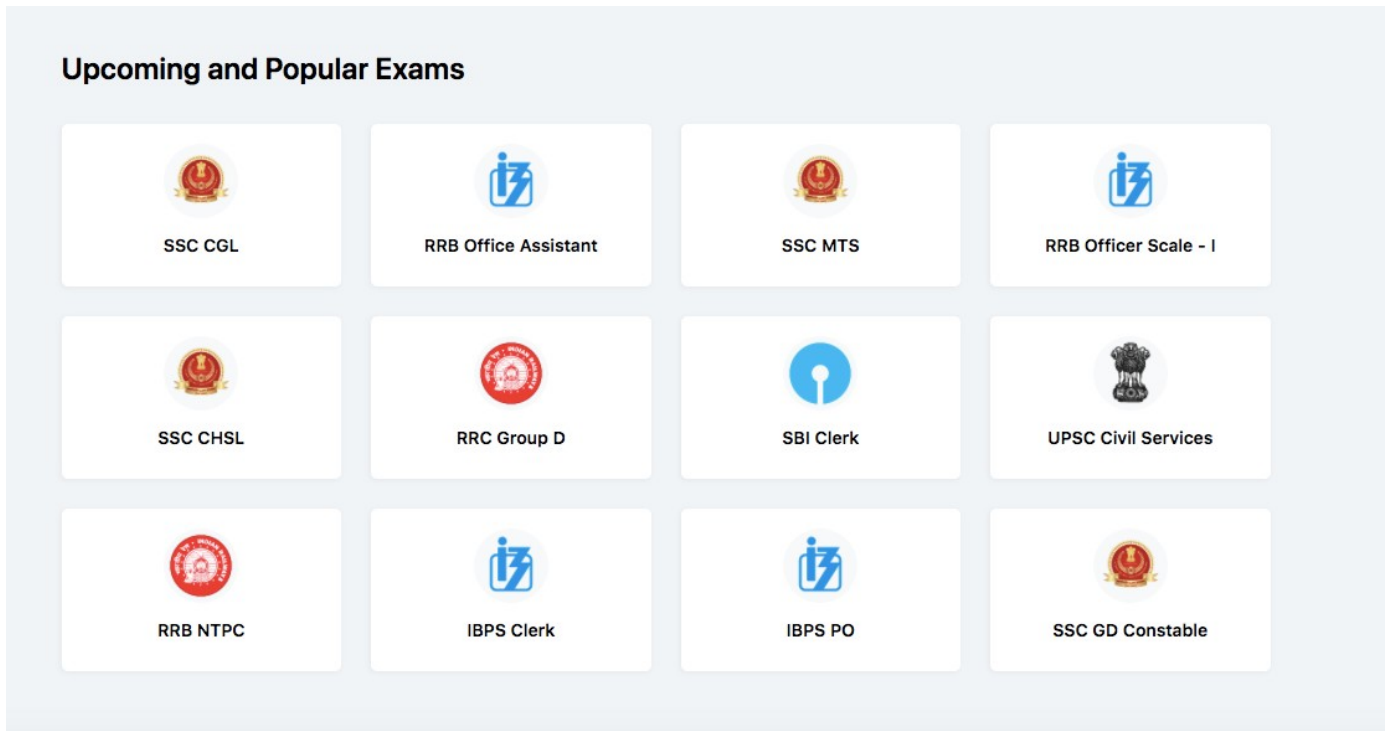


Fig 9. Interested in passes event

6. Signup model UX improvement mweb

Task to improve the user experience in signup model in case of mobile web. Earlier when user click on enter the pointer doesn't move to next input field as well as when user press enter after filling all the detail signup dont happen. User have to explicitly click on signup button or sendtop button.

This issue can cause new audience to who are planning to signup, ditch the process and go to other platform. Issue is resolved by putting various reference and controlling DOM from ts files

Get started with Testbook!

Signup with your mobile number

Mobile number

Continue

OR

Signup with Google

Already have an account? [LOGIN](#)

Fig 10 . Signup Model

7. Generic test processor

Task is to make a test processor for be data coming from backend so that every test like live test, scholarship test etc can be processed at a single point and in future changes are also to be done at one point.

challenges faced during this task is to identify every type of test requirement because missing single point can break the platform.

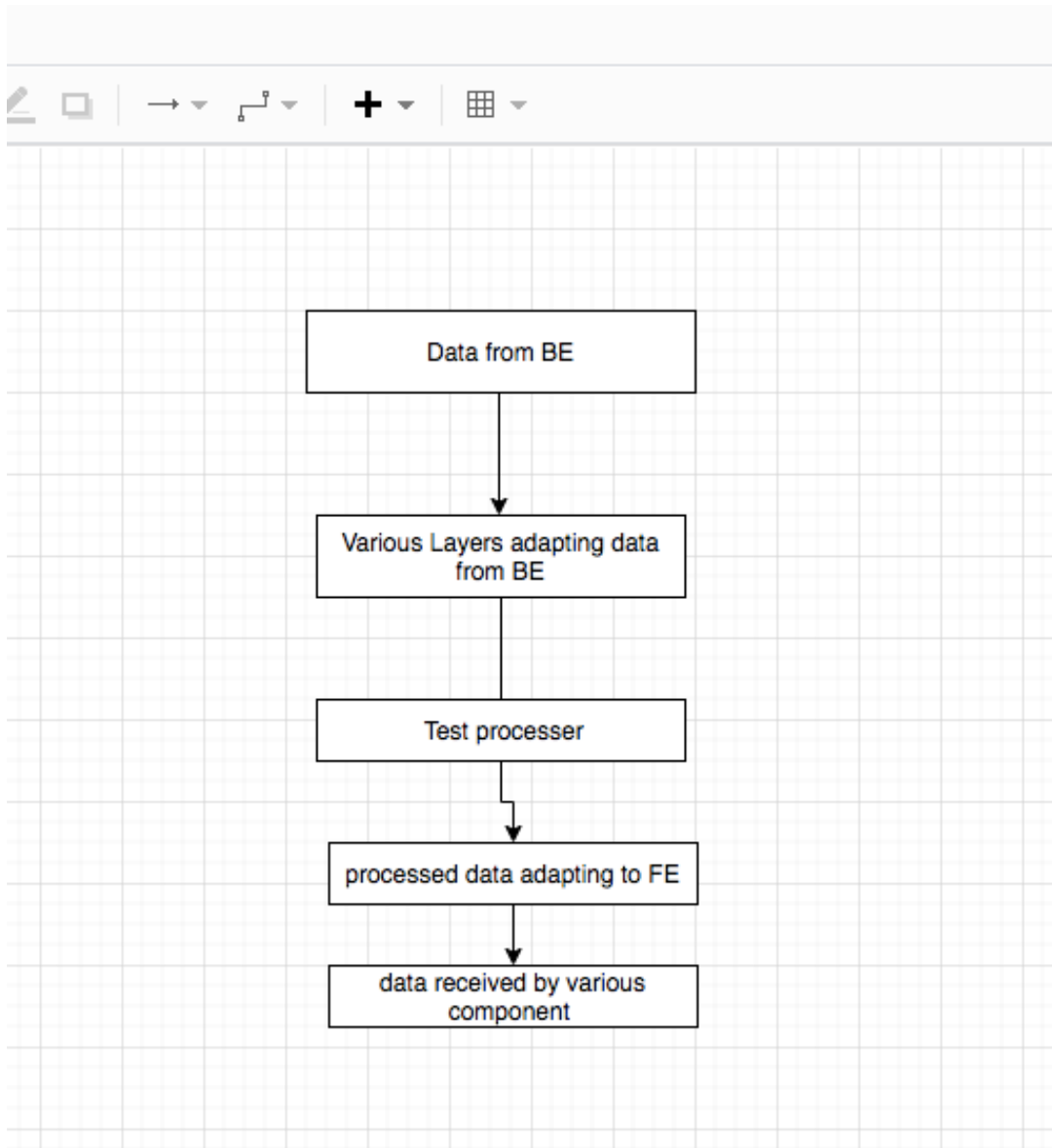


Fig 11. Test processor

8. GenericAlert Component

Alert component helps in showing alert box on screen when something unexpected happens and needs to be shown to user like registration failed. This component exists in angularjs flow but missing in angular.

So the task is to make generic alert component in which various alert messages can be made without restriction as well as timer to show alert should also be dynamic. This task is done using ngrx and making this dynamic changes in reducer. A regular interval is checking when to hide the alert i.e when time is up.

9. Genric Faq Component

Faq Component exists on most of the main pages of the website. This component is also multi lang i.e it support more then 1 language. Types of Faq are are different on different page but the type of data coming is quite similar

The Task is to identify all the types of Faq and their requirement. Various questions popped up like Determine whether sections are also multi lang and what kind of data they accept and the faq with no section how to handle them. Type of data is same for every faq but to determine whether keys coming from Backend are same or not.

Main issue during the task is that various features in progress also use this faq component so determining there requirement became very difficult

FAQ's

Tests
FAQs regarding mock tests

Payment/Transaction
FAQs regarding payment issues

Can I attempt a test multiple times? ▼

Can I download the question paper with solutions after the test? ▼

Do you also provide solutions for the questions? ▼

Will I get any report card after the test? ▼

Till when can I access the solutions and analysis of my attempted tests? ▼

Will all of my attempted tests be available during the Pass validity period? ▼

I am not able to access My Tests, what should I do? ▼

I am not able to see Tests for my desired exam. What should I do? ▼

Fig 12. Faq type 1

Frequently Asked Questions

What is Testbook Pass? ▲

Testbook Pass is an electronic version access to all the Mocktests offered by Testbook. Printed version can be ordered from here: <https://testbook.com/promos/mock-test-book.html>.

When will my Pass expire? ▼

Will I be able to access my tests after my Pass expires? ▼

Will all of my attempted tests be available during the Pass validity period? ▼

How many tests and exams do I get when I buy the Testbook Pass? ▼

Fig 13. Faq type 2

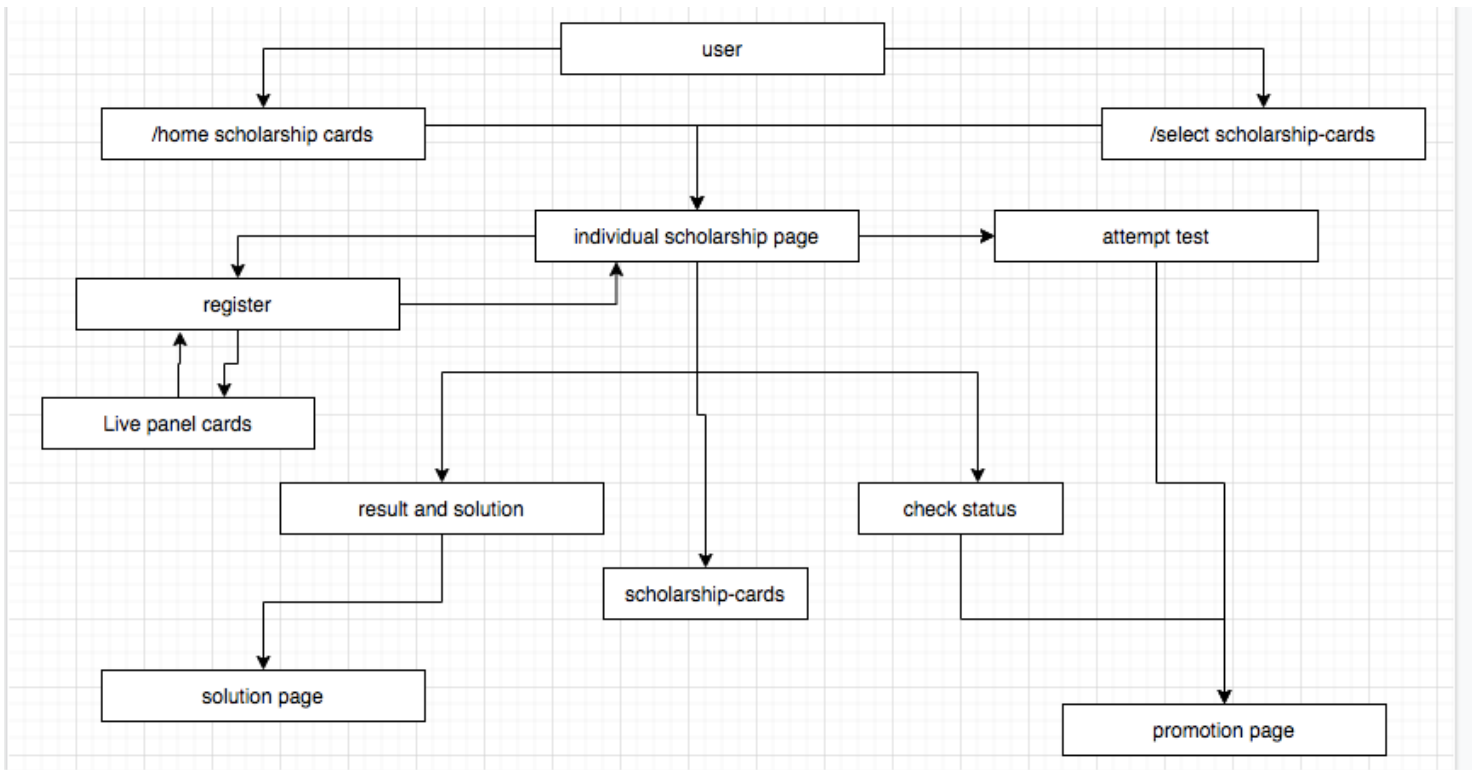


Fig 14. Faq type 3

10. Scholarship Tests SSR (Feature task)

After seeing the popularity of scholarship tests in apps, it was decided to launch them in web too. Scholarship tests help students who want to give the exam but don't have enough funds to buy the course. Depending on the score in tests, students will be given coupons and offers which will be sent to their respective mail IDs.

Scholarship Tests are held regularly and students can register for them to get timely notification about when the test starts and when the results are out. Registration is not mandatory but it helps in knowing about the status of the test.

Front-end of the Scholarship-Test is assigned to me as my first feature task. Various number of

api are used in getting data and registration.

Various components are made so that they remain reusable. Work is done in both angular and angular js flow.

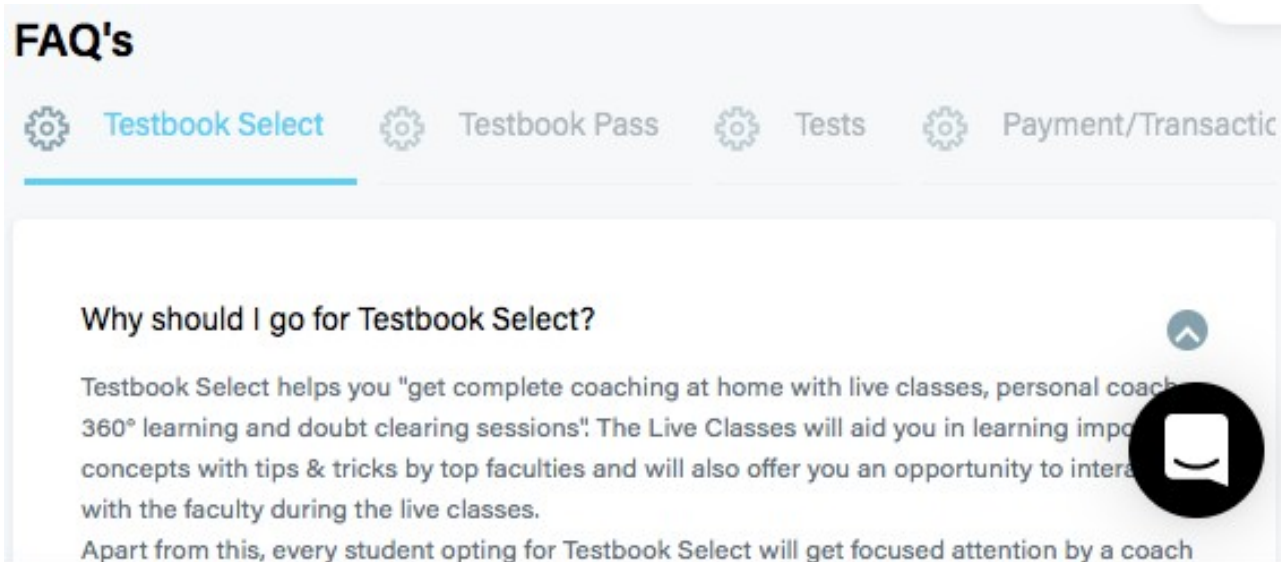


Fig 15. User journey model

User can enter to individual scholarship page using cards available on /home and /select. After going to page user can perform various other actions and can interact with other component available on page.

10.1. Scholarship test cards in angular/ angularjs

Scholarship cards are one of the most important part of this feature because without them there is no way a user can get to individual scholarship page. These cards exist in both the flows. There is no such difference in functionality of the cards but cards in angularjs are in form of directive whereas cards angular are in form component.



fig 16. Scholarship card

Data in cards including the icon are totally dynamic i.e coming from backend and adapted in a manner so that it can be used in front end. Bottom of the cards consists of various timers like starts In and result out. Right side of the bottom also have various CTAlike register now/ attempt test.



fig 17. Attempt CTACard

Difference between the cards in both flow is that the card carousel used in js flow is bootstrap carousel whereas in angular flow it is native using various function of angular. Animations are not added in angular flow because team is planning to make this an open source project.

10.2. Scholarship Header

Scholarship header is also one of the reusable part. Data coming in the header is from Backend, other than that various processors are added to make it look the way we wanted in front-end. Benefits of server side rendering are fully taken to show user cached data initially while on server and when reach on client side then the new data is shown. Performance have improved a lot using this.

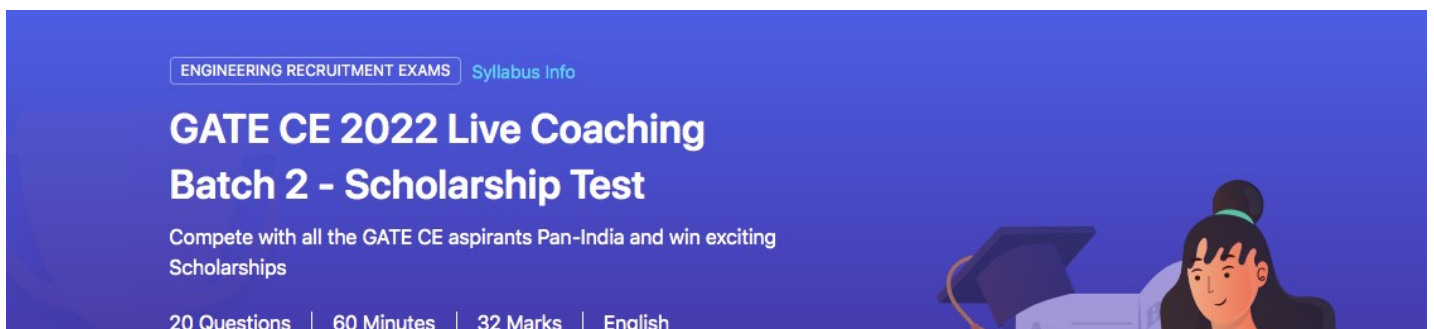


Fig 18. Scholarship header

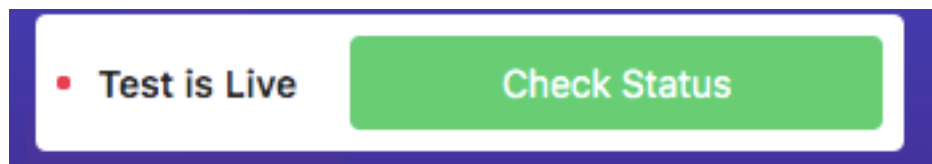
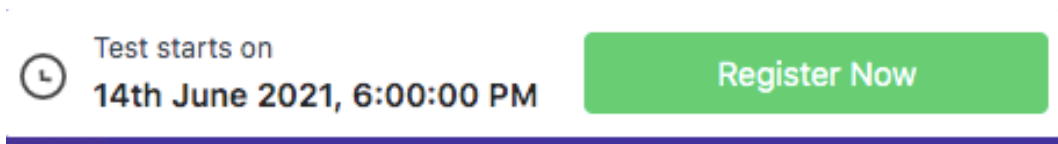
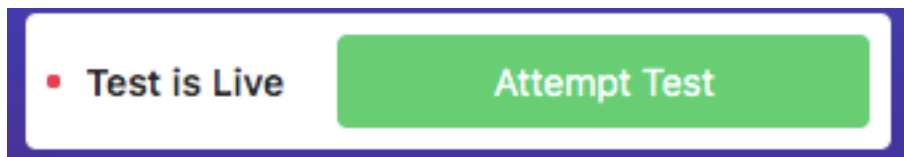
10.3. Scholarship Page CTA

There are various CTA's in main scholarship page and they totally depends on specific user history.

If unregistered user comes to page and test isn't started then user will be shown register now eta which will change to registered status. On loading phase while on server have a disabled button.

When test is live then user will have attempt now button which will take take user to test interface whereas after attempting the test user will get check status button.

Result and solutions also have various CTA



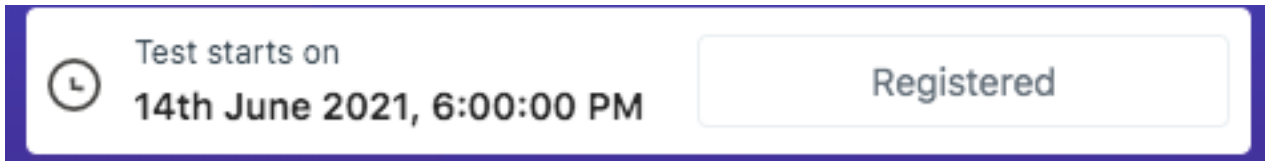


Fig 19. Scholarship Cta

10.4. Scholarship Marketing Component

Every main page has a marketing section so that when a user comes to that page the platform should convince them to register and give the test, also motivating them to see other products. Here in the case of a scholarship exam we are showing some ads as well as records of previous winners and scholarships given to them. Also showing benefits of a scholarship exam.

Win reward

 A blue marketing banner for "testbook SELECT RISE MEGA SCHOLARSHIP TEST". It features a laptop icon labeled "Laptop" and a trophy icon labeled "SCHOLARSHIPS TO 500 Students!". Below these is a red ribbon with the word "PRIZES". To the right is a table with the following data:

	# of Students	We Pay	You Pay
Scholarship	100	80%	20%
Scholarship	100	70%	30%
Scholarship	300	50%	50%

Fig 20. Reward marketing section

Past Scholarship Tests Winners




800000
Scholarships won



25000
Students Attended

SBI PO 2020
Scholarship Test



Venkata Narasimha
Rajuvaripet

Won 100% Scholarship

SBI PO 2020
Scholarship Test



Rashmi Rekha

Won 100% Scholarship

SBI PO 2020
Scholarship Test



Venkata Narasimha
Rajuvaripet

Won 100% Scholarship

SBI PO 2020
Scholarship Test



Mahesh Shingane

Won 100% Scholarship

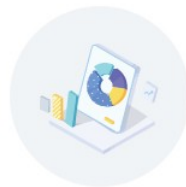
Why give the Scholarship Test?



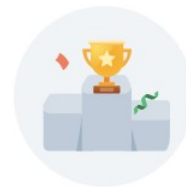
Win Scholarships
Lacs Worth of Scholarship
Giveaway



Assured Prizes
Perform in live tests and get a
Scholarship



In-depth Analysis
Get insights on your Strengths &
Weaknesses



Live Competition
See where you stand and
compare with Pan India Aspirants

Fig 21. Marketing sections

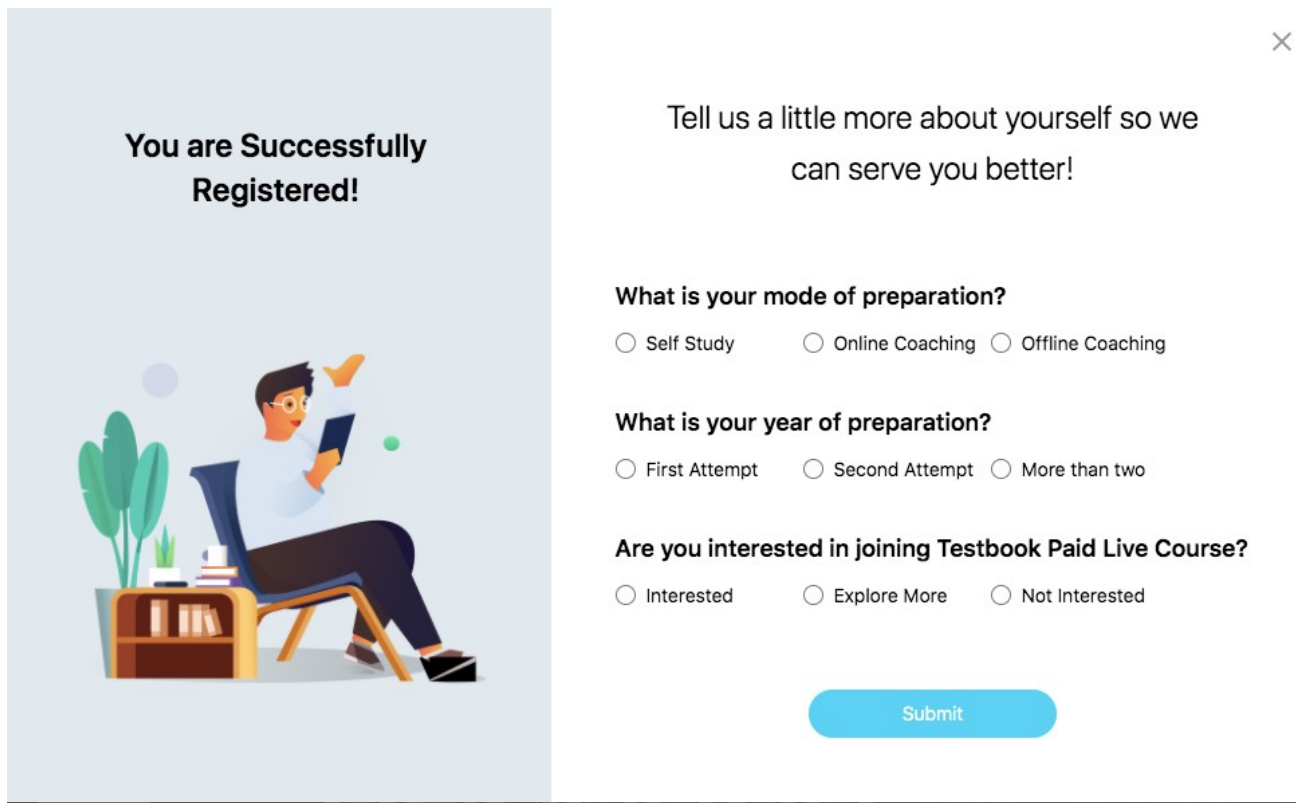
10.5. Scholarship Faq Component

Generic faq component is used here which of simple list type with multi lang support

10.6. Scholarship Feedback Model

Any user who haven't filled the feedback form is shown the feedback model on clicking register now where user have to select at least one option to submit. Questions and options coming in model is totally dynamic i.e coming from Backend.

Importance of feedback model is to know about the issues of users as well as what they like about the page and what is the benefits of scholarship test they think.



The image shows a feedback form interface. On the left, there is a light blue panel with the text "You are Successfully Registered!" and an illustration of a person sitting in a chair reading a book. To the right, the form asks for more information. It starts with the heading "Tell us a little more about yourself so we can serve you better!" followed by three questions, each with radio button options:

- What is your mode of preparation?**
 - Self Study
 - Online Coaching
 - Offline Coaching
- What is your year of preparation?**
 - First Attempt
 - Second Attempt
 - More than two
- Are you interested in joining Testbook Paid Live Course?**
 - Interested
 - Explore More
 - Not Interested

At the bottom right of the form is a blue "Submit" button. A close button (X) is located in the top right corner of the form area.

Fig 22. Feedback model

10.7. Scholarship Events

As discussed above events are important part for any page to capture the user activity.

Scholarship have 3 main events integrated in it.

Scholarship page ready event is fired when someone enters the page.

```
GTM push {sid: -1, page: "ScholarshipTestPage", pagePath: "/scholarship-registartion/scholarship-test", tlang: "english", pageLanguage: "english"}  
  page: "ScholarshipTestPage"  
  pageLanguage: "english"  
  pagePath: "/scholarship-registartion/scholarship-test"  
  sid: -1  
  tlang: "english"  
  __proto__: Object
```

Other events like test_started and test_submitted are fired when user starts the test and user ends the test. Key difference between keys comes depending on whether user goes to attempt state from scholarship cards or main page attempt CTA.

10.8. Live Panel

Live panel also have scholarship cards but of different type. Live panel is available mostly on every page so that user can reciter from anywhere he/she wants.

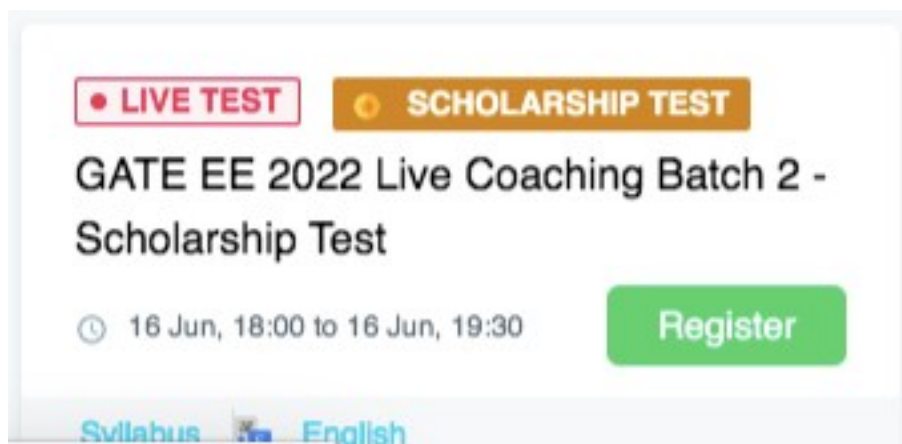


Fig 23. Live panel cards

Chapter 4: Testing

Testing depends on what kind PR is expected to go live. In case of bug fixes if files changed are low then only bug is tested on testing environment, if some defined task is about to go live then things related to that task are tested by tester of that particular pod whereas for feature like Scholarship firstly whole feature is tested then whole website goes through regression testing. Asana used for reporting bugs. Work on automated testing is going on.

Levels of Testing

1. Feature Level testing - Every feature which is major for company cashflow goes through its own testing. This testing starts with code running on some automation code written for automated testing then testers goes through the feature deployed on testing environment to identify flow and ui related bugs. Some ux related enhancement also comes through this phase. All the issues are assigned on asana so that developers can see which which developing team this bug should be assigned. this testing takes about 2-3 days
2. Regression - After feature being tested, whole site goes through regression so that any other features of the website is not broken by the current feature because lot of dependencies are present and it goes through same asana pattern. This testing takes about 1-2 weeks.
3. Sanity - This type of testing is done when some big fixes are about to go live and there chance of breaking of any flow or feature. This testing takes about 1-2 days

Chapter 5: Conclusion and Future Work

1. Conclusion

Perfect platform is a need of every aspirant and Testbook.com is trying to provide that quality content and that best platform to all at genuine rates. Doing internship there made me realized that developer should not only care about the code but thinking about product is also important.

Product should be developed in such a manner that it should not impact the other parts of side.

There should be a feeling of ease for user while using your product on platform. Scope of enhancement is always there, only thing required is developer seeing the product like user does.

Apart from all these code should be neat and we should always try to make parts which are reusable and help the code base in future.

2. Future Work

There is scope of lot of future work in scholarship like adding more events and making user journey more easy by increasing CTA on main page. Page speed is quite good but after removal of some extra js code and converting pictures to png can also boost the speed

References

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3. <https://angular.io/>
4. [https://www.educative.io/edpresso/what-is-server-side-rendering#:~:text=Server%2Dside%20rendering%20\(SSR\),the%20SPA%20framework%20to%20operate.](https://www.educative.io/edpresso/what-is-server-side-rendering#:~:text=Server%2Dside%20rendering%20(SSR),the%20SPA%20framework%20to%20operate.)
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