HACK-VOUCHER

A
Project Report
Submitted for the partial fulfillment
Of
Bachelor of Technology
in
Information Technology

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Under the guidance of

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May 2022

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Declaration

We hereby declare that this submission is our own work and that, to the best of our belief and knowledge, none of the material in this submission has been published or written by anyone else or has been accepted for consideration for a degree or diploma from any university or other institution of higher learning except where acknowledgement is given.

Submitted by: -

Date: 20-05-2022

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Certificate

This is to certify that the project report entitled “Hack-Voucher” presented by Nisar Ahmad, Pramod Arya and Shivam Shrivas in the partial fulfillment for the award of Bachelor of Technology in Computer Science and Engineering, is a record of work carried out by them under my supervision and guidance at the Department of Computer Science and Engineering at Institute of Engineering and Technology, Lucknow.

It is also certified that this project has not been submitted at any other Institute for the award of any other degrees to the best of my knowledge.

Dr.Manik Chandra

Department of Computer Science and Engineering
Institute of Engineering and Technology,
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Acknowledgement

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We would like to thank our classmates and friends who contributed to the completion of this project by exchanging interesting ideas and sharing their experiences with us. We wish to thank our parents as well for their undivided support and interest who inspired us and encouraged us to go our own way, without whom we would be unable to complete our project.

In the end, We want to thank our friends who displayed appreciation for our work and motivated us to continue our work.

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Abstract

As a result of the pandemic,our country has undergone a wave of digital transformation over the past two years. As a result of lack of choice, concerns about safety, or just convenience, consumers have been taking to digital means to fulfill their needs. This change in behavior boosted the growth of the e-commerce industry in India Due to an increase in internet and smartphone penetration, that segment had already experienced rapid growth, but the pandemic tripled it. it. Payments for everything, from groceries to clothes to books to personal care products, are now made online. This has led to the growth of e-commerce companies like Flipkart, Amazon, and Myntra.. due to that e- commerce companies like flipkart, amazon, myntra, zomato etc offer vouchers/gifts cards to promotes the online transactions and payments but The voucher/gifts that we receive from e-commerce website are getting waste because most of them are of not our use , so by seeing this scenario we motivate to use these voucher to exchange with other so that these voucher are used by other and we also used other vouchers that are of our use by exchanging with money or point. So basically we created a full stack web application ,where users can buy and sell the voucher.Voucher are the ecommerce rewards or virtual gifts that users get when they do any kind of transaction from these ecommerce websites. E-commerce websites that provide vouchers are google pay, amazon pay, bhim upi.

The objective of this paper is to develop a full stack web application system for buy and Sell the unused vouchers. The system was developed using NodeJS and MongoDB as server side programming and database respectively.

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List of Tables

Chapter 1 - Introduction

Hack Voucher is a full stack web application ,where users can buy and sell the voucher.Voucher are the ecommerce rewards or virtual gifts that user gets when they do any kind of transaction from these ecommerce websites. E-commerce websites that provide vouchers are google pay, amazon pay, bhim upi.

In this project we are making voucher hosting platform in which we get the some vouchers from different e-commerce website like google pay, amazon pay, bhim upi etc which are when we redeem, some come out blank and some of no use of us .If we have got the coupon, which is our waste coupon/that is of no use . So basically, In this Project which we are building, a voucher hosting platform we can sell blank vouchers there. and can purchase useful vouchers like discount coupons, cashback coupons etc .

This is the key of the project . We also get some bank discounts, coupons from shopping websites like myntra, flipkart, amazon. Some trading account coupons that are of no use for us, but can be useful to others. Our Platform will identify blank vouchers, or non-usable to us and we can use them for our profit to earn money. Here user can buy and sell their voucher at the same place without moving back and forth at a dashboard that is on a home where all the listed vouchers are hosted.

Chapter 2 - Literature Review

Form the last decade the era of gift voucher or gift card raise a very high.Due to which the hike in the ecommerce website is gradually increase so by seeing that ecommerce websites try to provide a voucher to a user in which their is discount on the product so that user used more e-commerce website by seeing that large amount of discount on product.Before pandemic we usually gift cards physically to ours relatives friends and close one .but due to lockdown and pandemic gifts the cards physically are not possible.so consideration the problems that arise due to pandemic we can gifts the cards and offer vouchers discount coupon virtually over the internet to our family member relatives friends and close ones. That vouchers or coupon that we get from different e-commerce website for promoting their brand.

At last ,we would like to convey that for trusting online transactions the e-commerce companies start giving gifts cards and vouchers to their users for their trust and promoting themselves so e-commerce companies give coupons like discount on other apps , cashbacks that are the part of their strategy for promoting online transactions, shopping etc.

2.1 Related Work

Zingoy

Zingoy is an application where user get a cashback and rewards when they buy a voucher through Zingoy. Zingoy also give a cashback when user create a account on it. User also get a cashback and rewards when they share a zingoy website link to their friend in each referral user who send a web application link and the one who create a profile get the rewards.Creation of Zingoy link is easy there is a option of share in the profile section from where on clicking on share a link is create having a link of the Zingoy plus the referral code of the user, User who want to create a accoun*t* click on the link and it redirect user to the web application registration page where normal detail of the user required plus there is one option of providing a referral code if you have that referral code then on providing it use and your friend get a some amount of rewards. Zingoy contacts the e-commerce website and give their voucher to their user.

In Zingoy their are buyer who sell their voucher on the basis of their needs.zingoy basically provide us platform where we can buy the e-gift cards and we need to redeem e-gift cards,voucher to the particular showroom to get the benefits of that voucher.

2.2 Motivation

The vouchers that we receive from e-commerce websites are getting wasted because most of them are of not our use , so by seeing this scenario we are motivated to use these vouchers to exchange with others so that these vouchers are used by others and we also use other vouchers that are of our use by exchanging with money or points.

It is a full stack web application ,where users can buy and sell the voucher.Voucher are the ecommerce rewards or virtual gifts that user gets when they do any kind of transaction from these ecommerce websites. E-commerce websites that provide vouchers are google pay, amazon pay, bhim upi.

Chapter 3 – Methodology

Some of the main features of the our application will be as follows:

- Authentication and authorized user using passport.js.
- Add vouchers section where we can add the vouchers in that application.
- We take the details of vouchers like voucher name , company name, voucher code that all the information related to that particular vouchers is verified by admin .
- Displaying all the vouchers in different views at the home page.
- Buy vouchers link on all the vouchers from where we can buy any card.
- Profile section for all the users where tracking of remaining of wallet money quantity of host vouchers and buy vouchers and likes.
- Dedicated section for filtering of vouchers with different checkboxes for both on the basis of price and company.
- Available vouchers are filtered according to users interest.

3.1 System Design

3.1.1 Data Flow Diagram

The system design of our web application is described using data flow diagrams.

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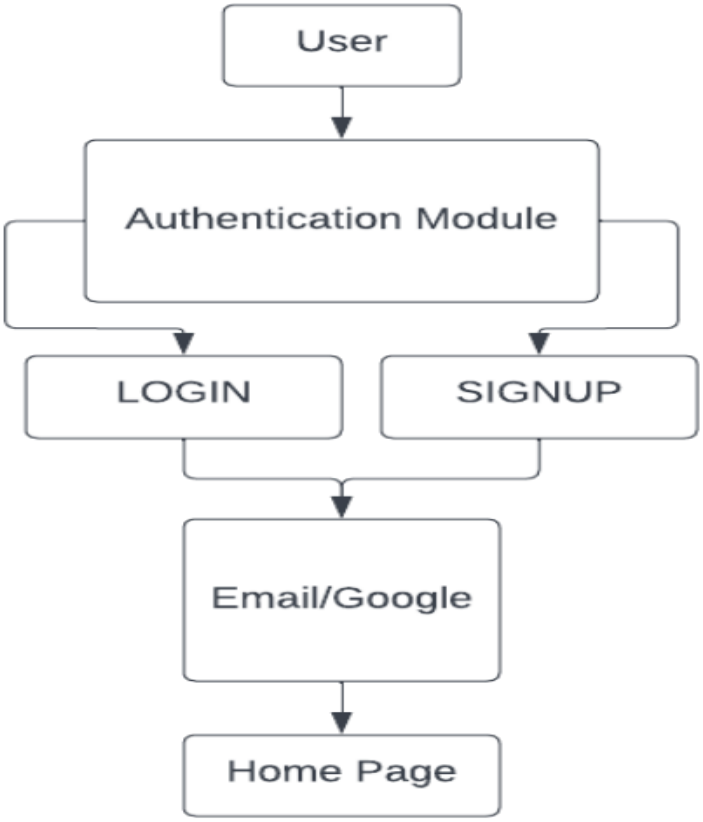


Figure 3.1- shows the data flow diagram of the user authentication module.

here we validate the users by user id and password.

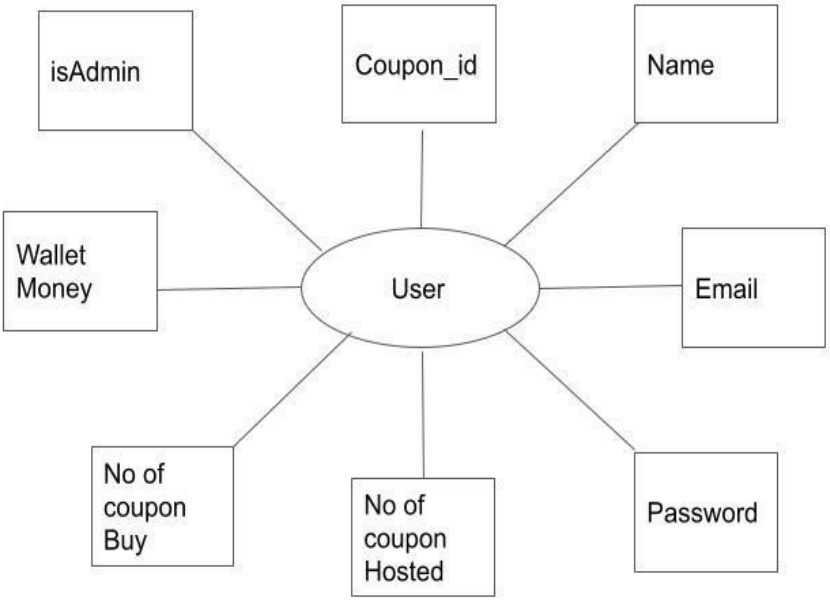


Figure 3.2 – User Schema diagram showing the various properties of user

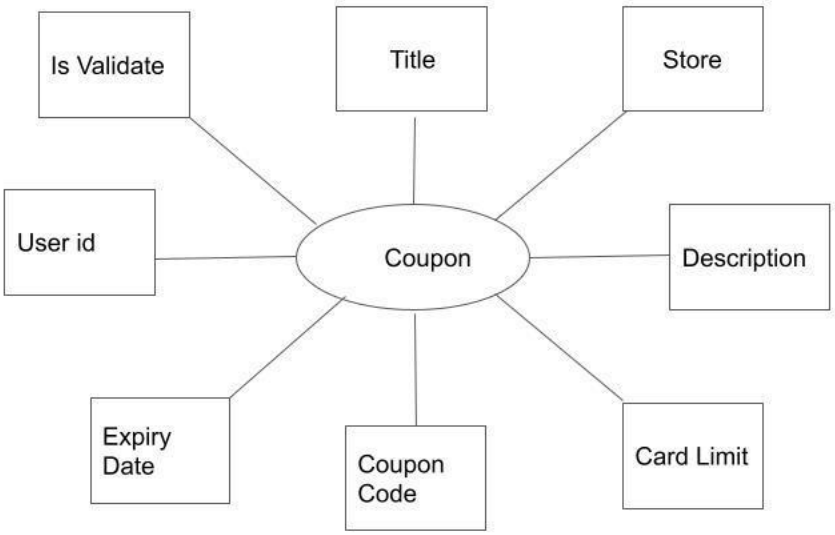


Figure 3.3 Coupon Schema showing the properties of coupon.

Major technologies used are described as follows:

- Backend- NodeJS, ExpressJS
- GUI Frontend- HTML/CSS, Bootstrap, JavaScript
- IDE- Visual Studio Code
- Database- MongoDB
- Version Control System- Git Bash, Github
- Deployment Platform- Heroku
- Other tools- Postman, MongoDB Compass.

3.1.2 Terminologies Used

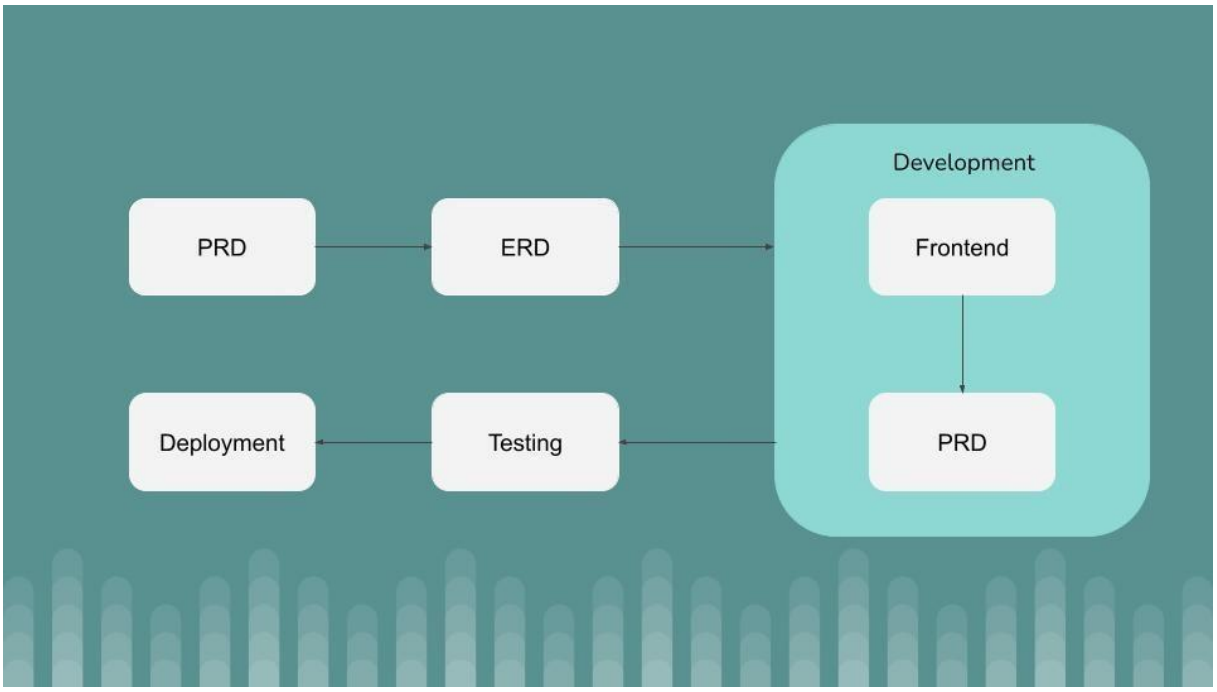


Figure 3.4 shows stages of the Software Cycle Action plan.

● PRD (Product Requirement Document)

All the requirements of a certain product are contained by a product requirement document (PRD) . It helps the team to get a clear understanding of the product's objective. However, a PRD does not define technical parts of the product .It is a document by looking that developer and designer use their own skill to create a product.

● ERD (Engineering Requirements Document)

The goal and purpose of a new component is described by an engineering requirement document (ERD) like a PRD. An ERD tells how engineers should proceed, why a part is being build and what purpose it fulfills. By ERD engineers ensure that customer needs are satisfied.

● Software development Life Cycle (SDLC) model:

● Agile model

Agile software development is a collection of several software development methodology which are based on certain development methods by which different functional team collaborate in a project. Agile process ensures discipline projects management process with certain features like accountability, self-organization, encourages teamwork, promotes leadership philosophy, adaptation and frequent inspections. It is a best set of engineering practices which allow developers to allow rapid delivery of high-quality software. It also ensures best business approach which not only satisfies customer needs but also fulfills company goal. The concept of Agile Manifesto is aligned with development process of agile process

Deployment Phases:

- Staging on Heroku
- Production (on AWS)

The duration of sprint will be of one month for PRD, ERD and UI development, it will utilize first two sprints, as it is not dynamic but static. Hence this makes integration and testing of project much easier. Agile model's incremental aspect will be used for backend features. Implementation of certain features like authentication, user model, etc will be done in prototype. Addition of certain features will be integrated into the solution of subsequent prototypes of the application. The backrest two sprints and will minimum take three sprints after fi which are allocated for PRD, ERD and UI development

3.2 Onboarding Flow

3.2.1 Sign-up Flow

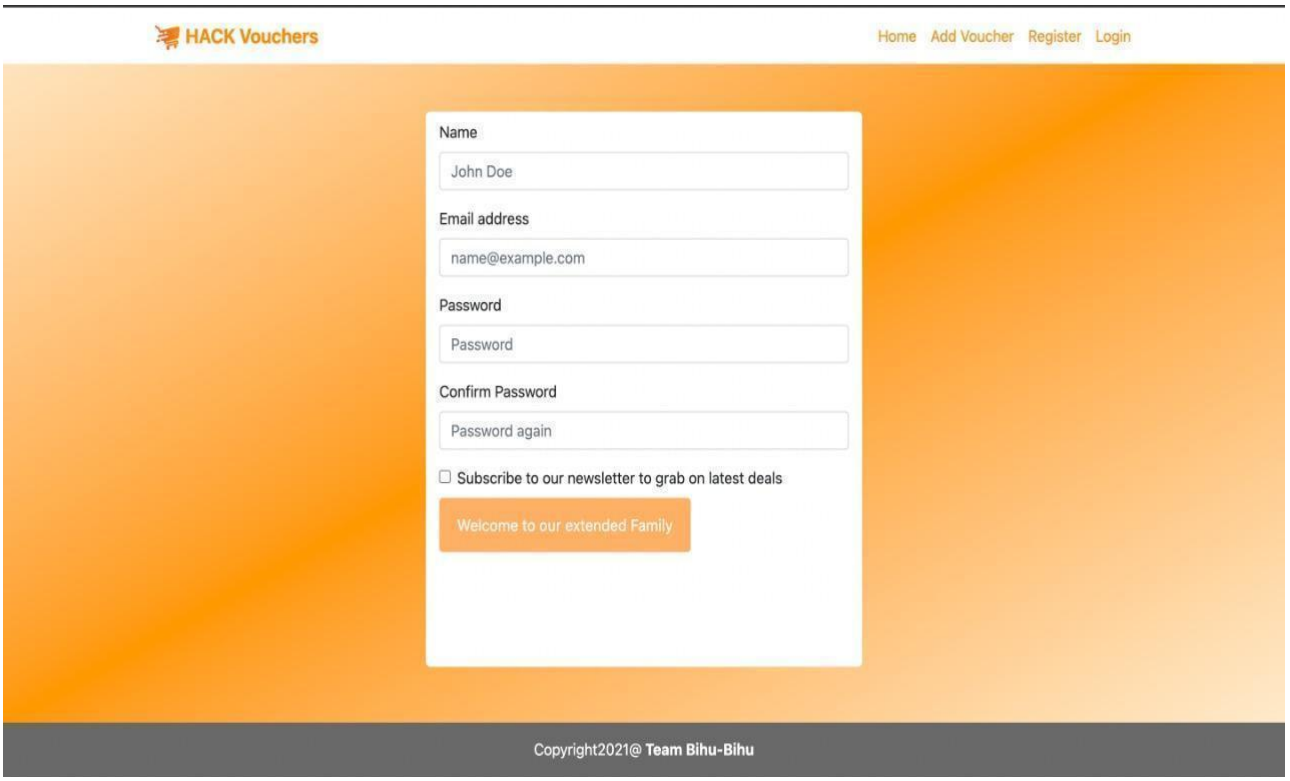


Figure 3.5 shows Signup screen UI

For user to use our website they have to registered on our website for that they have to fill a general detail by which we identify them and using which they login in our website.The detail that they have to fill are Name of user,Email address, Password and Confirm Password .Once user fill these details user are registered in our website.

3.2.2 Sign-in Flow

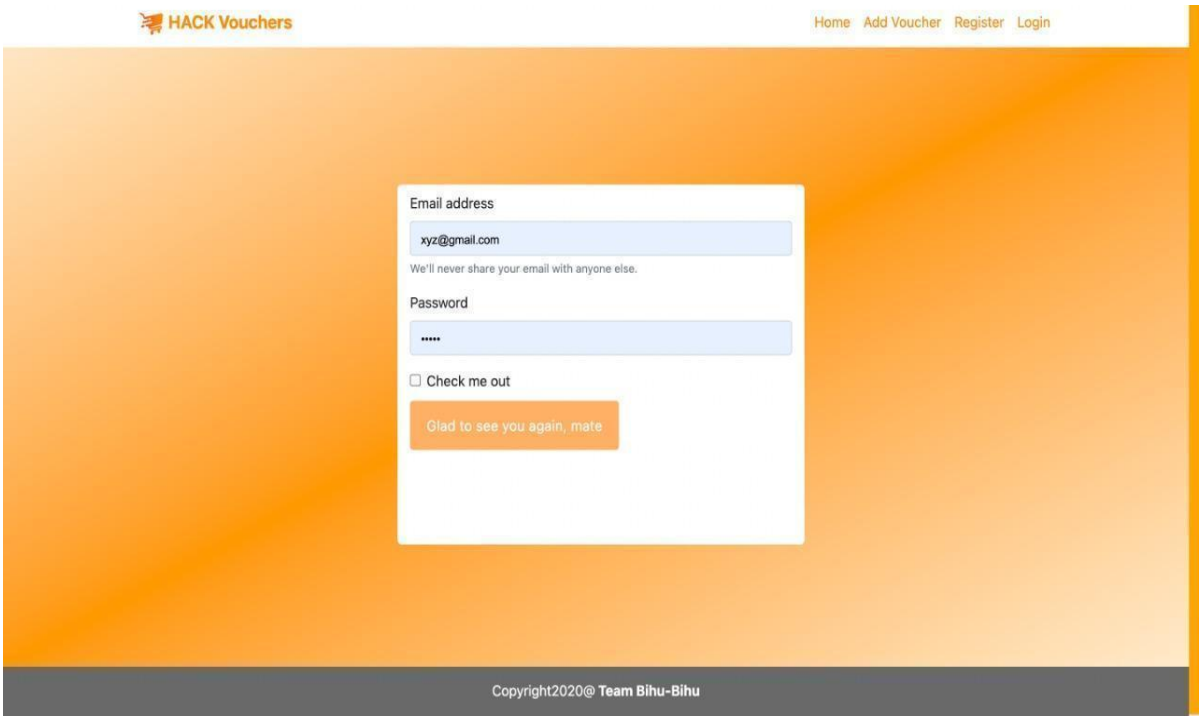


Figure 3.6 shows sign in screen UI

Once a user is registered, they have to login/sign-in by using a email id and password that they provided at the time of registration in our website.If the detail that user provided is matched with the details that are in our database ,used is allowed to login.

3.3 Dashboard

Dashboard is the page which will act like the main menu of the website. It has a feature showing the profile of the user , filter of vouchers, sign out, available coupon/vouchers, numbers of registered users , Number of vouchers , number of vouchers exchanged. Dashboard contains the links of all the pages like add voucher , profile.

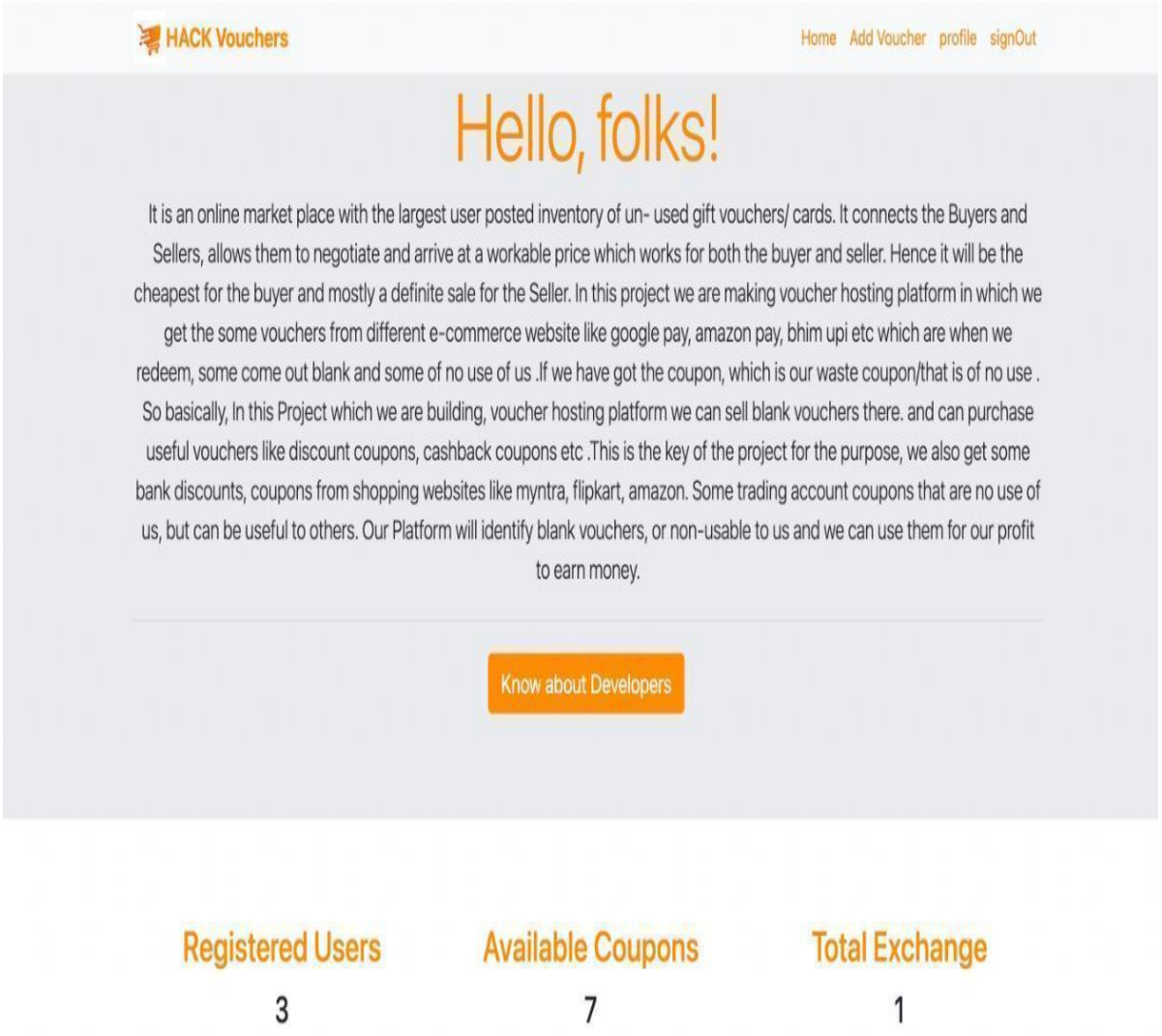


Figure 3.7 shows the Dashboard

3.4 Voucher

This section shows the details of vouchers like voucher title, voucher description, name of online store, price of voucher.

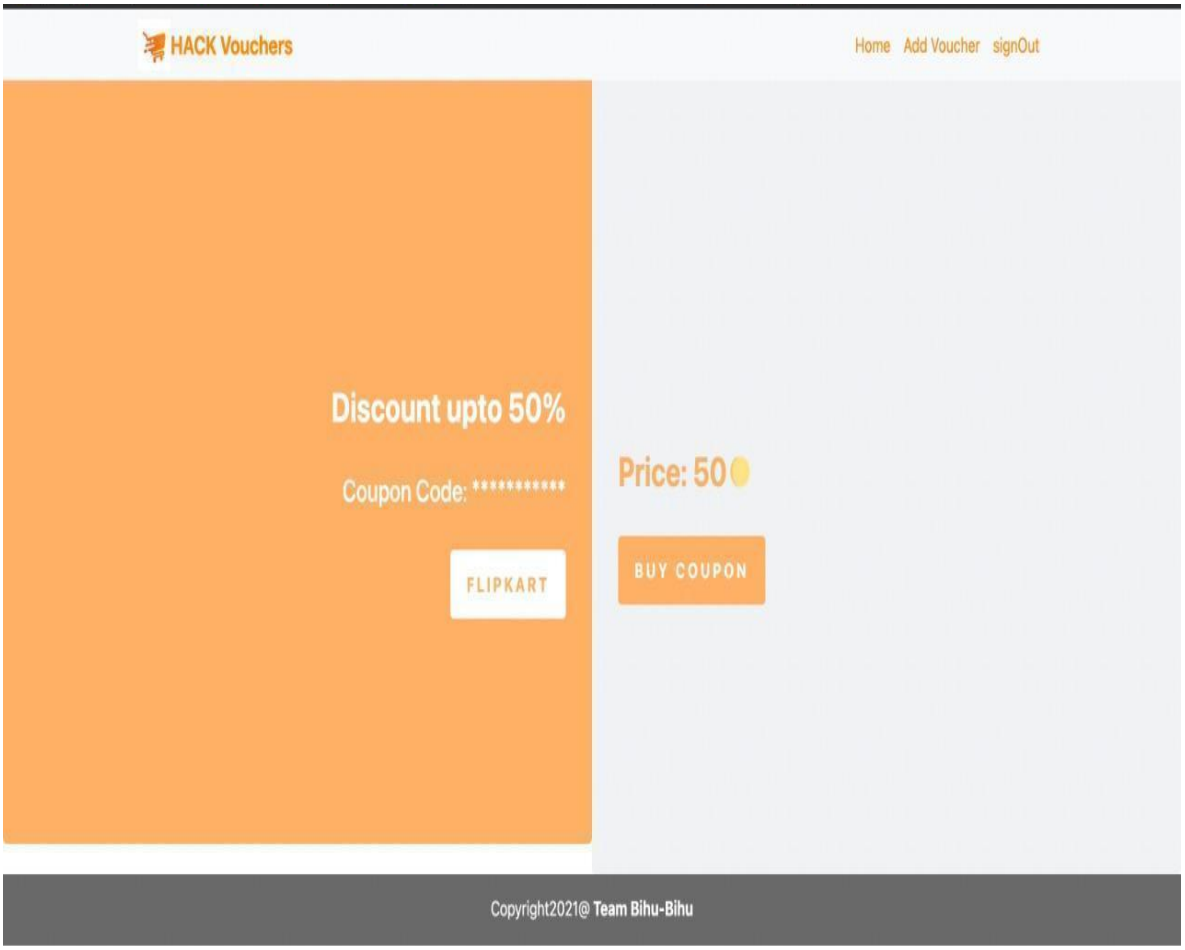


Figure3.8 shows the voucher

3.4.1 Add Voucher

This section allows users to add their voucher which is to be sell .Users add the voucher by filling all the details in our “Seller Form” like Title ,name of Online store, Description, voucher code.

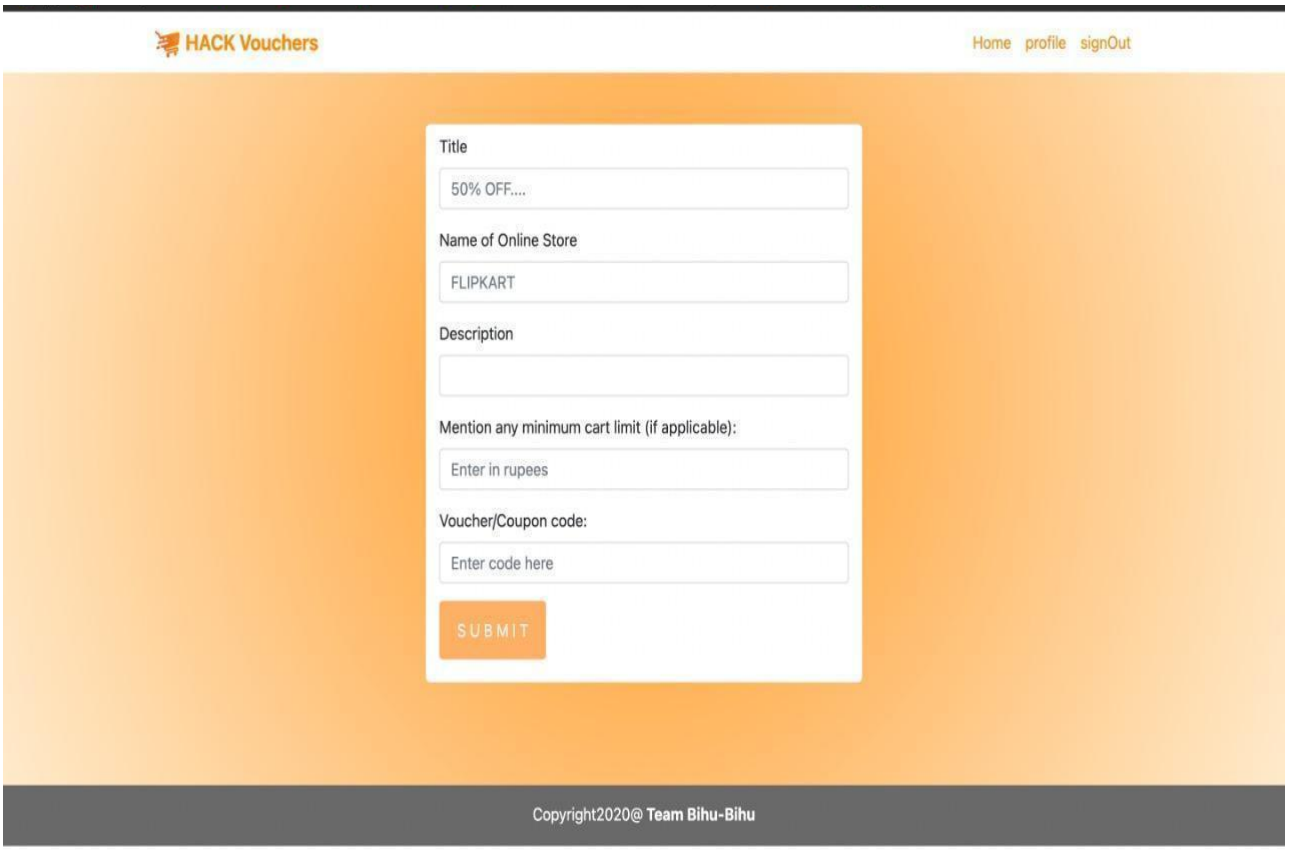


Figure 3.9 add the voucher

3.4.2 Buy Voucher

This section allows user to buy the vouchers that are available on the home page .For that they have to click on the card link and then the voucher is open with all detail and then on clicking on buy option it is added to user profile.

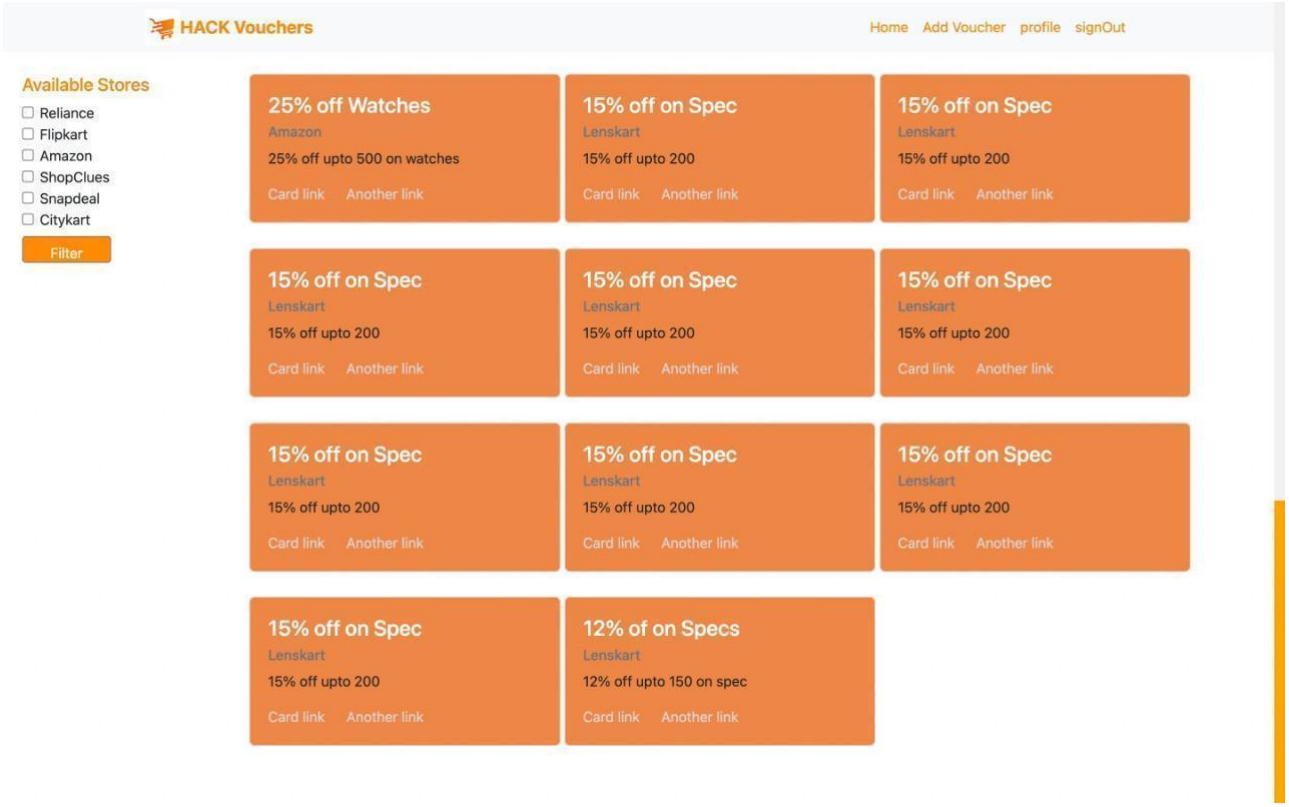


Figure 3.10 List of Vouchers

3.5 Payment

This section allows users to add coins in a wallet for that we use Paytm payment integration..

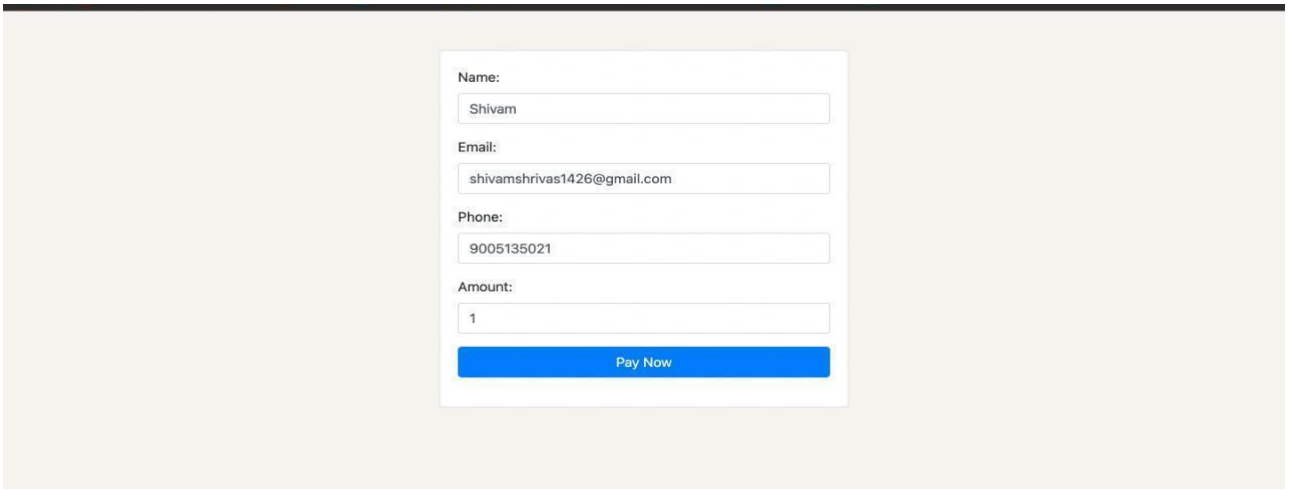


Figure 3.11shows Payment integration form screen UI

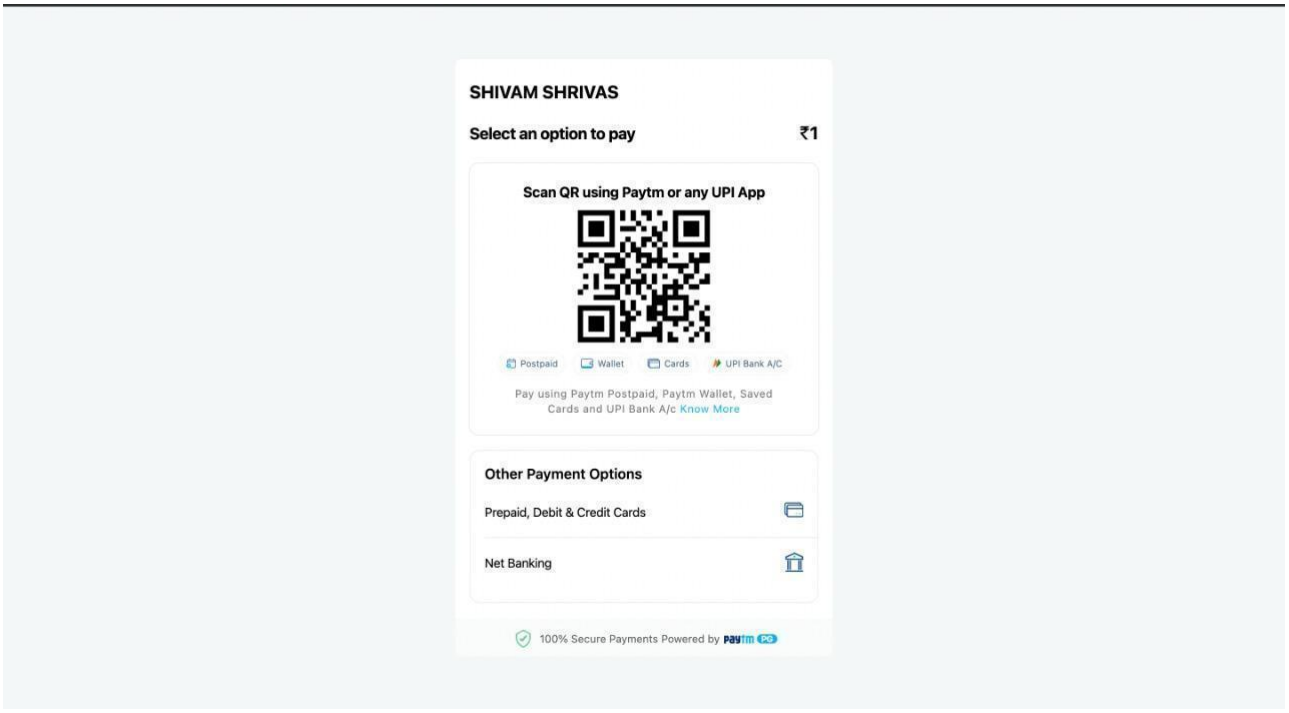


Figure 3.12 show payment interface

3.6 Profile

This section shows the profile of users that contain user name , registered email, coupon hosted, coupon buy, coins in wallet.

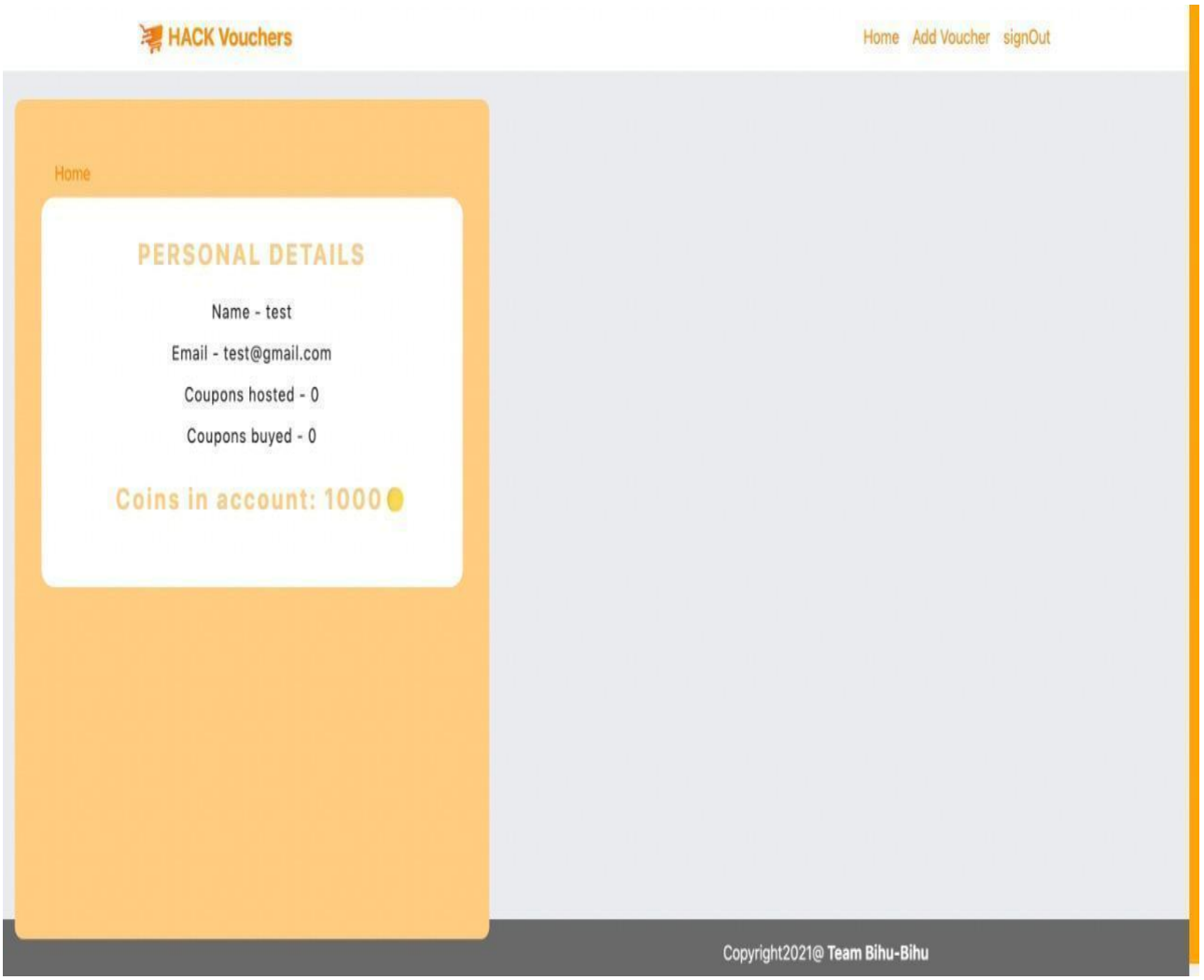


Figure 3.13 shows the users profile

Chapter 4 - Plan of Action

4.1 Plan of Action Timechart

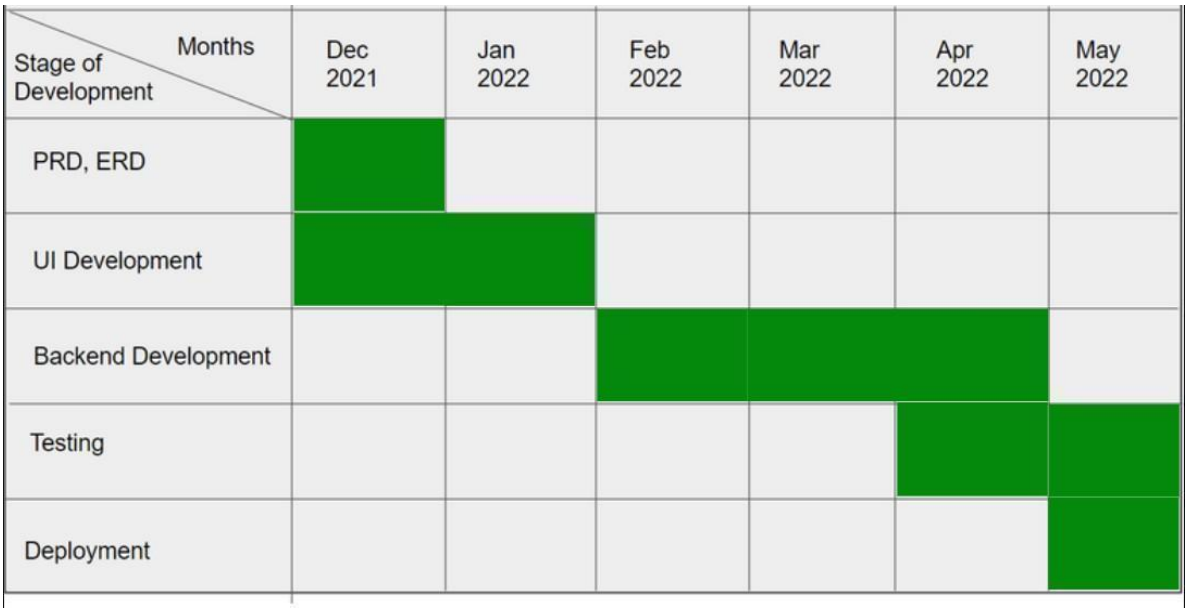


Figure 4.1 shows plan of Action Time Chart

4.2 Plan of Action Timesheet

Months	Stage of Development	Details
Dec 2021	PRD, ERD (*first 20 days*), Elementary UI development	• Home/login UI • Dashboard UI • Profile UI • Add Voucher UI
Jan 2022	UI Development	• User Base UI • Voucher Base UI • Filter for Voucher

Feb 2022	Backend Development	• Authentication • Adding Voucher • Buying Voucher • Voucher code implementation
Mar 2022	Backend Development	• User code implementation • Pop ups code implementation • Notification implementation
Apr 2022	Backend Development, Testing	• Payment gateway integration • Jest test for unit test • Integration tests
May 2022	Testing, Deployment	• Staging/Heroku deployment • Unit tests and integration • Presentation Preparation • UI Final Touches • Product Documentation/Report

Figure 4.2 shows plan of Action Timesheet

Chapter 5 - Conclusion

5.1 Conclusion

The product we got at the end is the full stack web application that customized coupon/gift card search for an user. This web application aims to eliminate the wastage of unused vouchers/gift cards. We also get some bank discounts, coupons from shopping websites like myntra, flipkart, amazon. Some trading account coupons that are of no use to us, but can be useful to others. Our Platform will provide users coins in exchange of money that is our profit to earn money.

5.2 Future Works

Hack -Voucher is very useful for the users because in pandemic time all the e-commerce companies gives gift cards and vouchers for purchasing their products and also we get cashbacks by payments apps like google pay, phone pay , paytm etc. Now they found the base of customers so now they give gifts cards and vouchers that are oftenly unusable for us .So here we provide a web application platform where users can sell their unused gift card and vouchers and purchase usable vouchers and gift cards.

We can also include a section for negotiation where users can negotiate on purchasing and selling of vouchers and gift cards.

- This feature is available to only logged in users.
- Choose the gift card you would to Negotiate the price and click on “Negotiate”
- It will open a window, on the Left side of the Text Area, there is a “Negotiate” button, click that to open the Negotiate box
- Enter the amount that you want to negotiate.

We would also develop android apps and launch on play store .android app make more interactive.
UI and easy to use for users
We can also implement filter such a way that user view voucher of their interest and also get a notification on their profile and email when someone added a voucher of their interest.

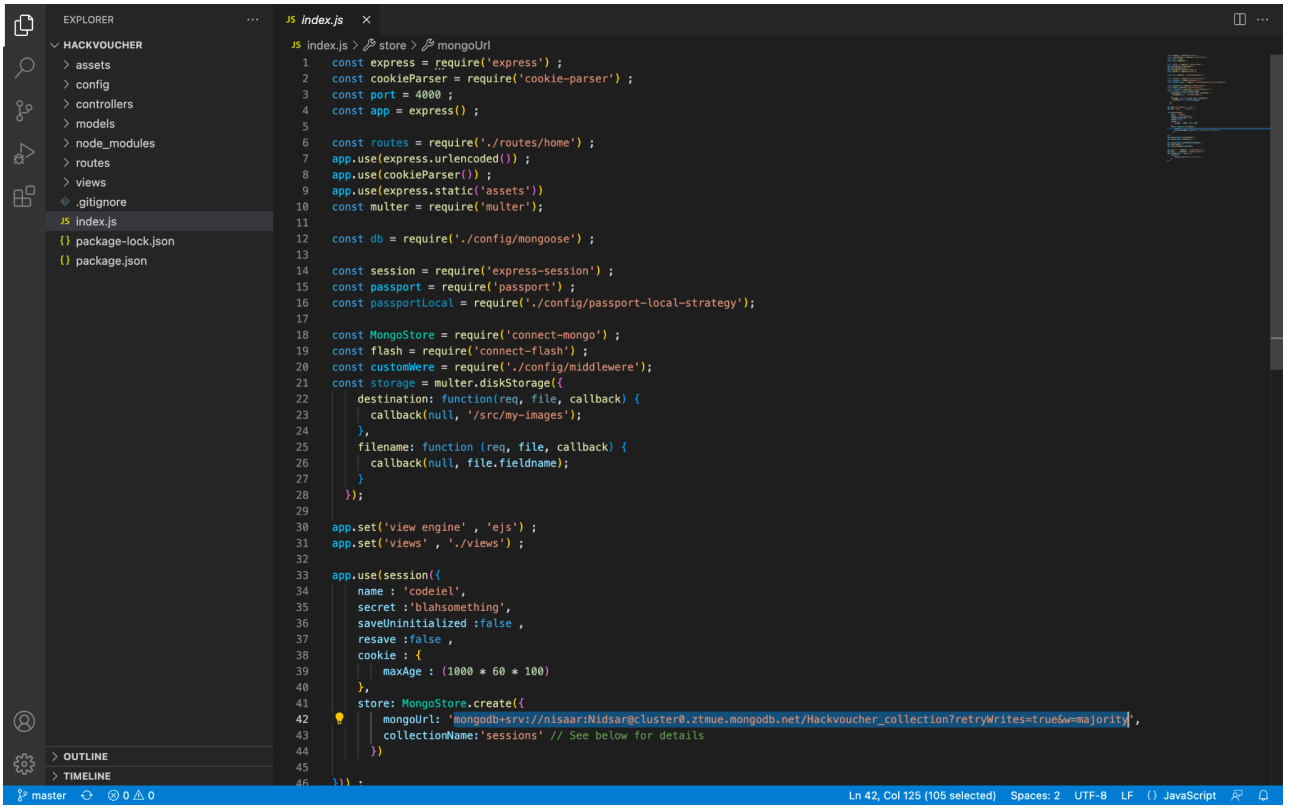
As we have less time, we could not implement all the features but in future we implement all the above mentioned points plus add other features that are given as feedback by faculties.

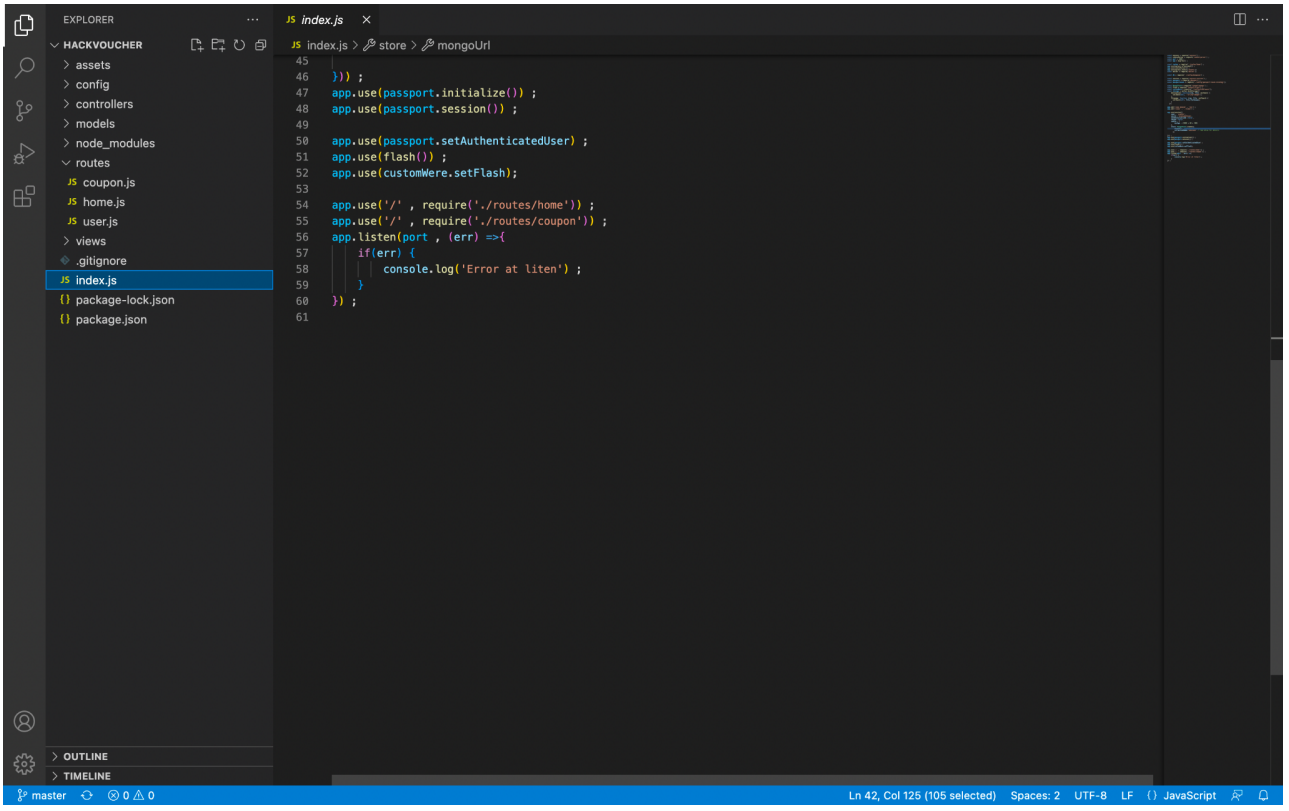
References

- https://www.persistencemarketresearch.com/market-research/gift-card-market.asp
- INTERNATIONAL JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH VOLUME 8, ISSUE 08, AUGUST 2019 ISSN 2277-8616
- Volume: 57 issue: 4, page(s): 739-754
  Article first published online: April 27, 2020; Issue published: August 1, 2020
  .
- Public opinion on Security of Data from companies, *November 2019*, Brooke Auxier, Lee Rainie, Pew Research Center.Online Learning
- Wikipedia(https://en.wikipedia.org/wiki/)
- tutorials on point. (2020). SDLC-agile model-tutorialspoint. Retrieved from tutorials point.com:

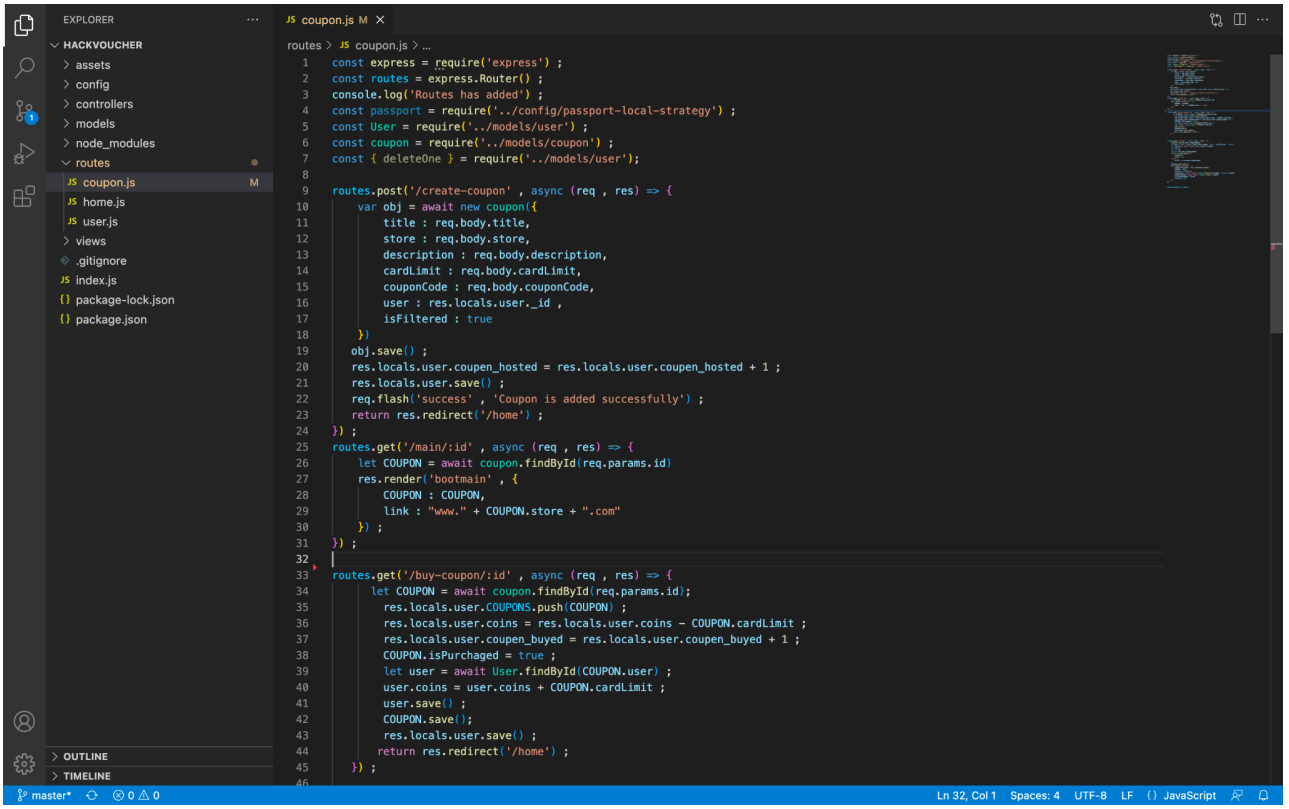
Annexure

Annexure1





Annexure 2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user.js
views
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index.js
package-lock.json
package.json
OUTLINE
TIMELINE
coupon.js M
routes > coupon.js > ...
1 const express = require('express') ;
2 const routes = express.Router() ;
3 console.log('Routes has added') ;
4 const passport = require('../config/passport-local-strategy') ;
5 const User = require('../models/user') ;
6 const coupon = require('../models/coupon') ;
7 const { deleteOne } = require('../models/user');
8
9 routes.post('/create-coupon' , async (req , res) => {
10 var obj = await new coupon({
11 title : req.body.title,
12 store : req.body.store,
13 description : req.body.description,
14 cardLimit : req.body.cardLimit,
15 couponCode : req.body.couponCode,
16 user : res.locals.user._id ,
17 isFiltered : true
18 })
19 obj.save() ;
20 res.locals.user.coupen_hosted = res.locals.user.coupen_hosted + 1 ;
21 res.locals.user.save() ;
22 req.flash('success' , 'Coupon is added successfully') ;
23 return res.redirect('/home') ;
24 }) ;
25 routes.get('/main/:id' , async (req , res) => {
26 let COUPON = await coupon.findById(req.params.id)
27 res.render('bootmain' , {
28 COUPON : COUPON,
29 link : "www." + COUPON.store + ".com"
30 }) ;
31 }) ;
32
33 routes.get('/buy-coupon/:id' , async (req , res) => {
34 let COUPON = await coupon.findById(req.params.id);
35 res.locals.user.COUPONS.push(COUPON) ;
36 res.locals.user.coins = res.locals.user.coins - COUPON.cardLimit ;
37 res.locals.user.coupen_buyed = res.locals.user.coupen_buyed + 1 ;
38 COUPON.isPurchaged = true ;
39 let user = await User.findById(COUPON.user) ;
40 user.coins = user.coins + COUPON.cardLimit ;
41 user.save() ;
42 COUPON.save();
43 res.locals.user.save() ;
44 return res.redirect('/home') ;
45 }) ;
46
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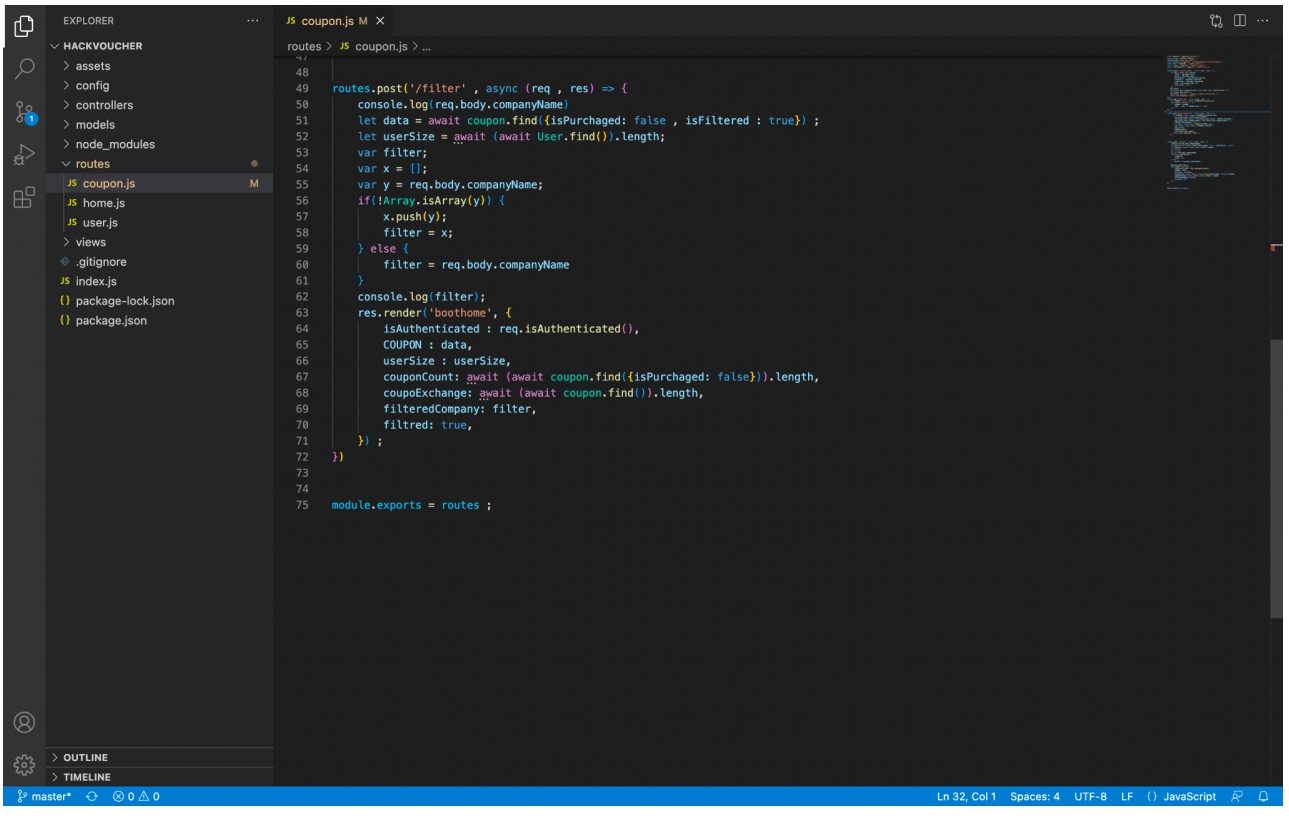
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package.json
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TIMELINE
coupon.js M
routes > coupon.js > ...
48
49 routes.post('/filter' , async (req , res) => {
50 console.log(req.body.companyName)
51 let data = await coupon.find({isPurchaged: false , isFiltered : true}) ;
52 let userSize = await (await User.find()).length;
53 var filter;
54 var x = [];
55 var y = req.body.companyName;
56 if(!Array.isArray(y)) {
57 x.push(y);
58 filter = x;
59 } else {
60 filter = req.body.companyName
61 }
62 console.log(filter);
63 res.render('boothome', {
64 isAuthenticated : req.isAuthenticated(),
65 COUPON : data,
66 userSize : userSize,
67 couponCount: await (await coupon.find({isPurchaged: false})).length,
68 coupoExchange: await (await coupon.find()).length,
69 filteredCompany: filter,
70 filtred: true,
71 }) ;
72 })
73
74
75 module.exports = routes ;
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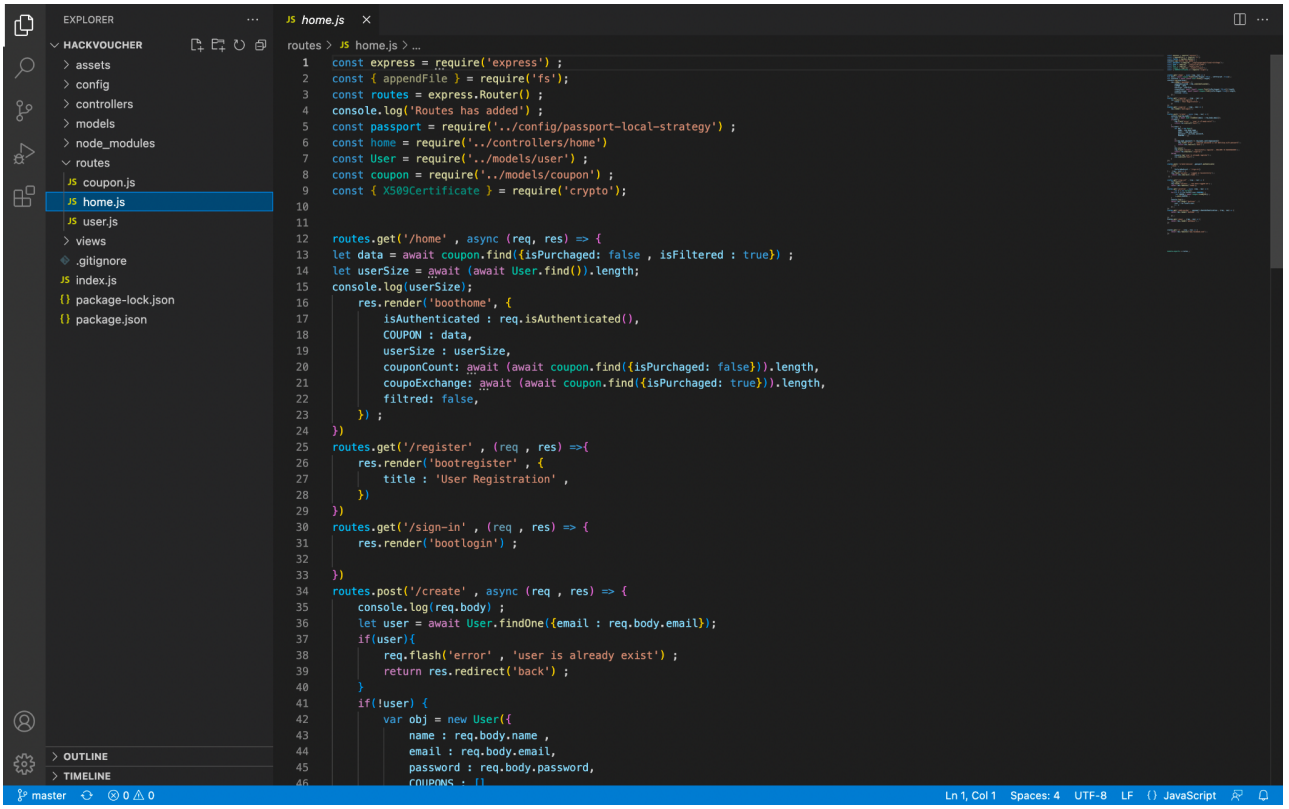
Annexure 3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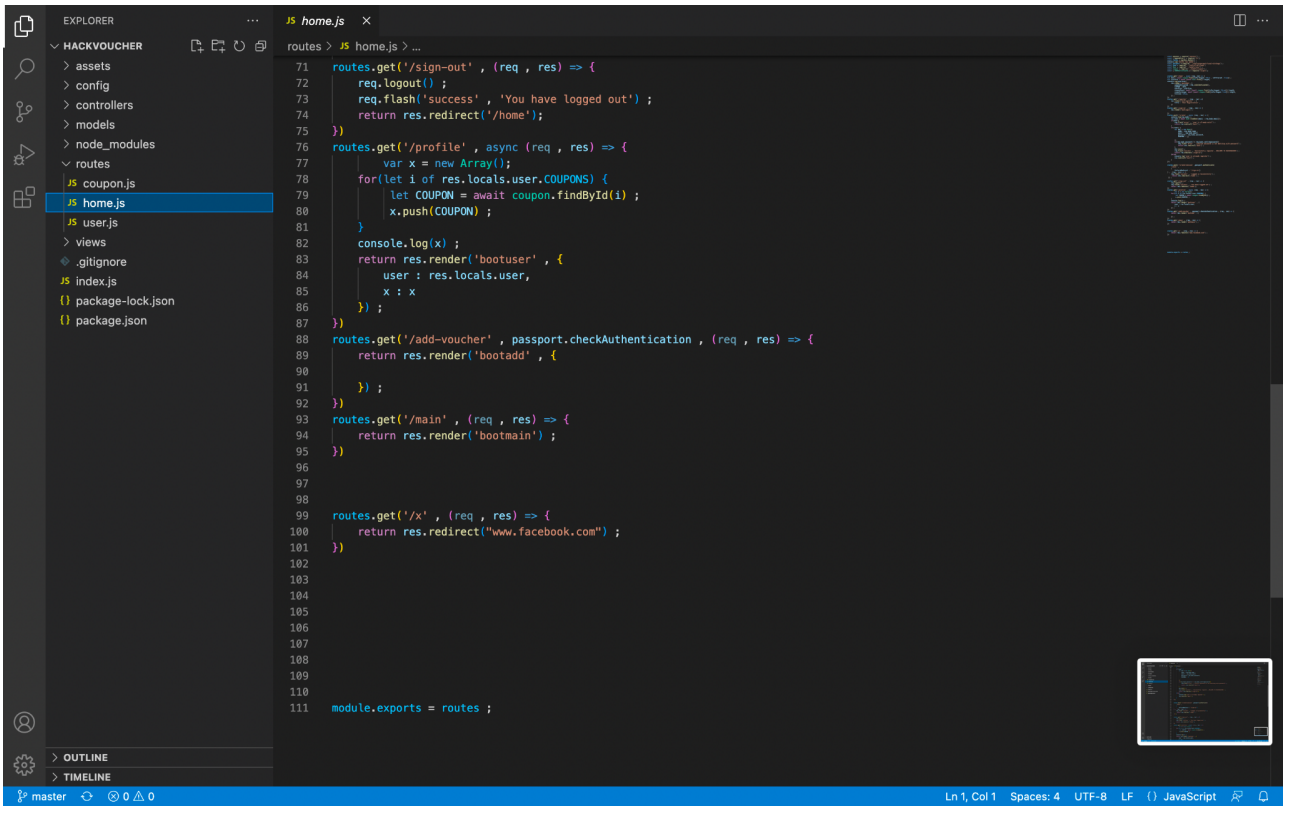
package.json
routes > home.js > ...
const express = require('express') ;
const { appendFile } = require('fs');
const routes = express.Router() ;
console.log('Routes has added') ;
const passport = require('../config/passport-local-strategy') ;
const home = require('../controllers/home')
const User = require('../models/user') ;
const coupon = require('../models/coupon') ;
const { X509Certificate } = require('crypto');
routes.get('/home' , async (req, res) => {
let data = await coupon.find({isPurchaged: false , isFiltered : true}) ;
let userSize = await (await User.find()).length;
console.log(userSize);
res.render('boothome', {
isAuthenticated : req.isAuthenticated(),
COUPON : data,
userSize : userSize,
couponCount: await (await coupon.find({isPurchaged: false})).length,
coupoExchange: await (await coupon.find({isPurchaged: true})).length,
filtred: false,
}) ;
})
routes.get('/register' , (req , res) =>{
res.render('bootregister' , {
title : 'User Registration' ,
})
})
routes.get('/sign-in' , (req , res) => {
res.render('bootlogin') ;
})
routes.post('/create' , async (req , res) => {
console.log(req.body) ;
let user = await User.findOne({email : req.body.email});
if(user){
req.flash('error' , 'user is already exist') ;
return res.redirect('back') ;
}
if(!user) {
var obj = new User({
name : req.body.name ,
email : req.body.email,
password : req.body.password,
COUPONS : []
OUTLINE
TIMELINE
master
Ln 1, Col 1
Spaces: 4
UTF-8
LF
JavaScript


EXPLORER
home.js
HACKVOUCHER
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node_modules
routes
coupon.js
home.js
user.js
views
.gitignore
index.js
package-lock.json
package.json
routes > home.js > ...
routes.get('/sign-out' , (req , res) => {
req.logout() ;
req.flash('success' , 'You have logged out') ;
return res.redirect('/home');
})
routes.get('/profile' , async (req , res) => {
var x = new Array();
for(let i of res.locals.user.COUPONS) {
let COUPON = await coupon.findById(i) ;
x.push(COUPON) ;
}
console.log(x) ;
return res.render('bootuser' , {
user : res.locals.user,
x : x
}) ;
})
routes.get('/add-voucher' , passport.checkAuthentication , (req , res) => {
return res.render('bootadd' , {
}) ;
})
routes.get('/main' , (req , res) => {
return res.render('bootmain') ;
})
routes.get('/x' , (req , res) => {
return res.redirect("www.facebook.com") ;
})
module.exports = routes ;
OUTLINE
TIMELINE
master
Ln 1, Col 1
Spaces: 4
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JavaScript