

EasyWay

Deliverable 4

Subject: CS691

Computer Science Project 1

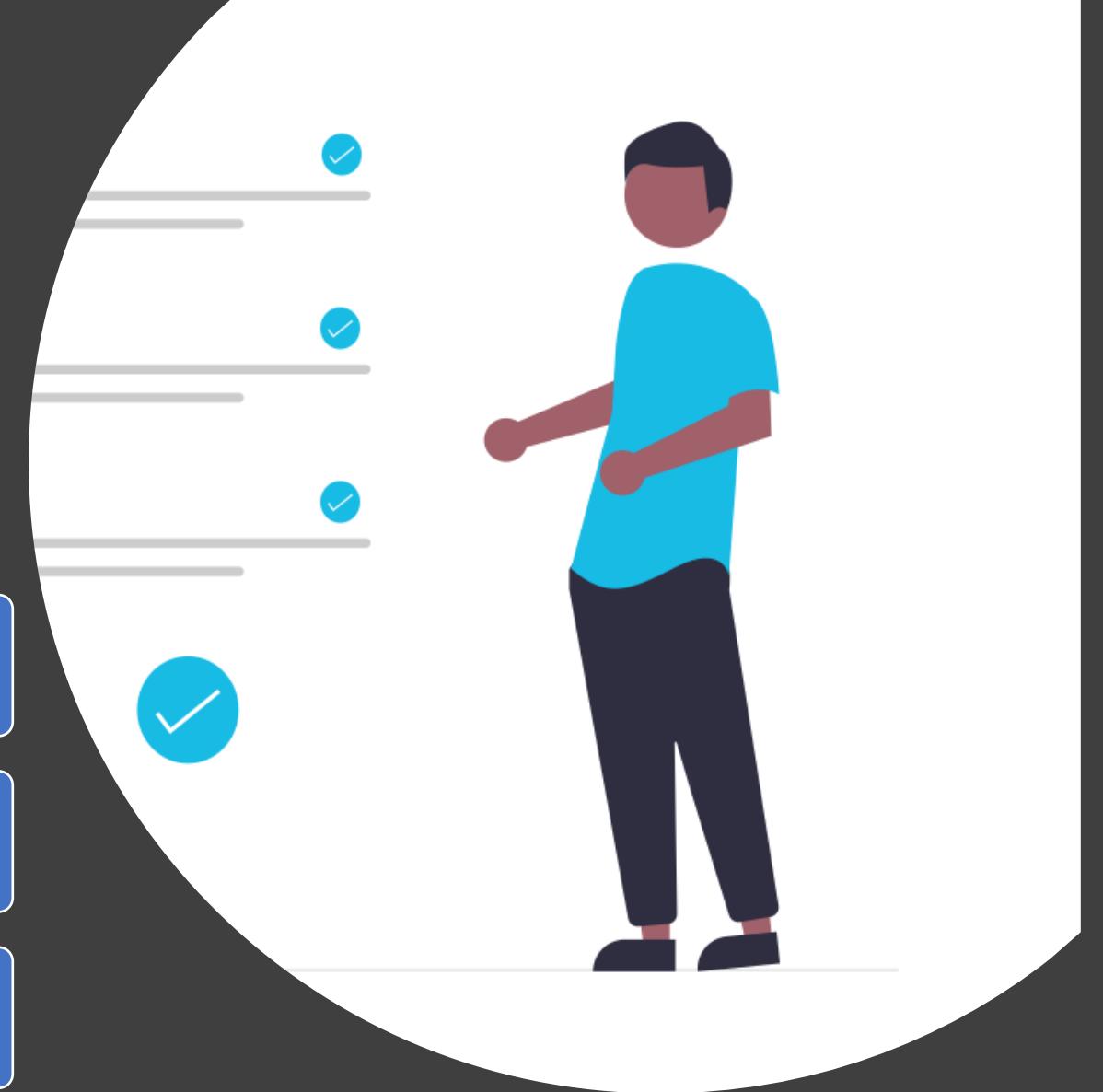
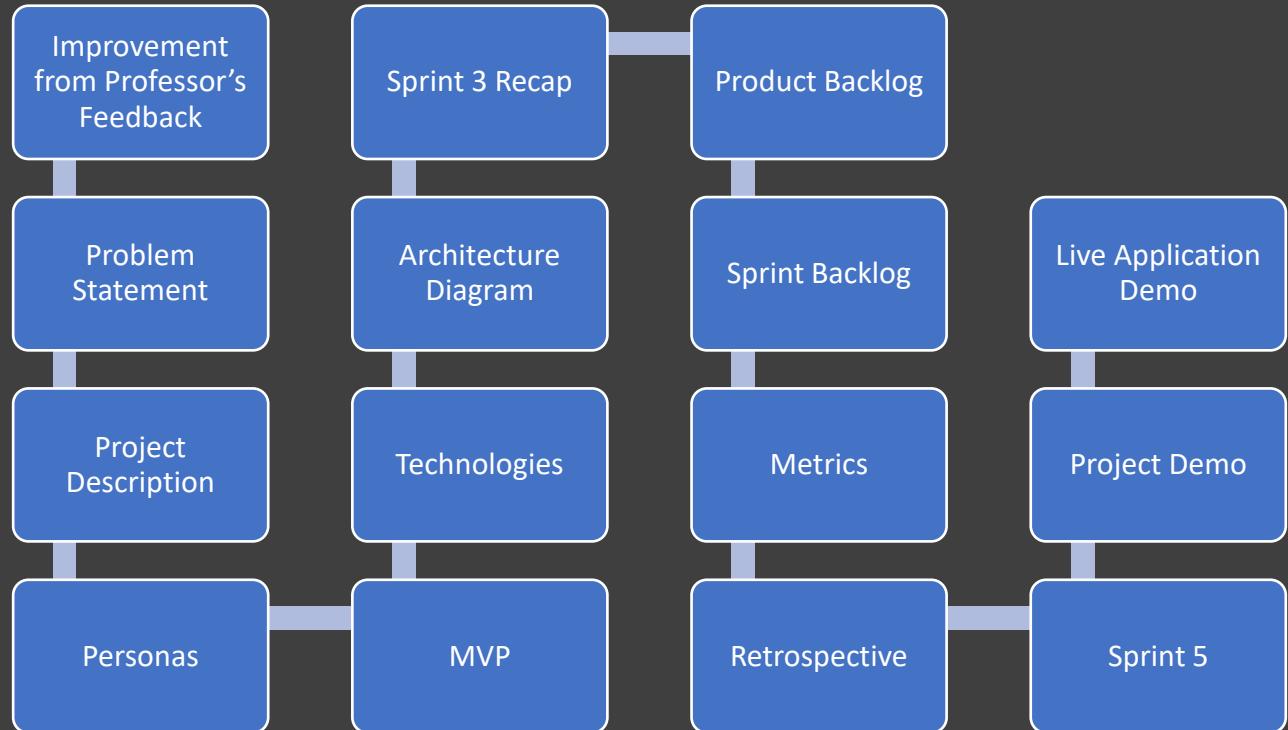
Designed By:

Vidisha Vijay Sawant



Agenda

Agenda



Professor Feedback from the previous deliverable

- Add ER database diagram.
- In the burndown chart use story points instead of issue count.



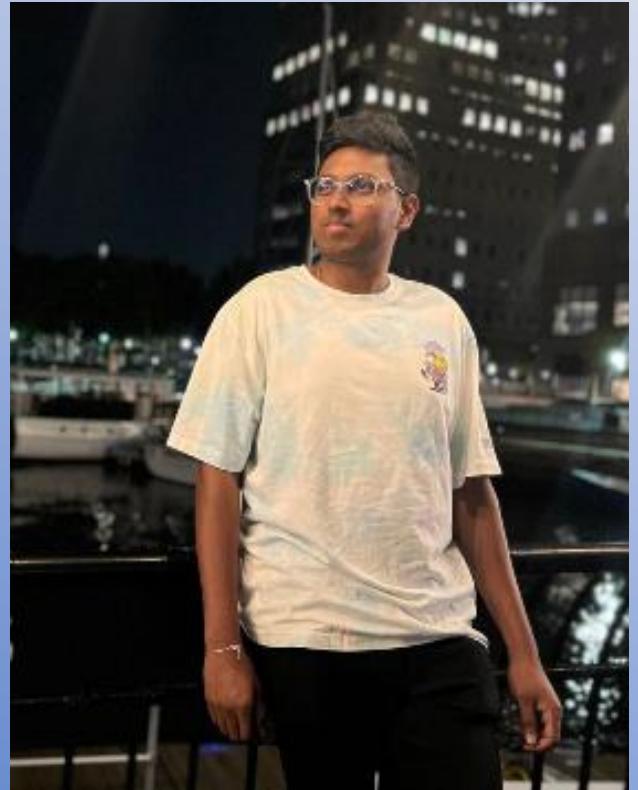
Team Member Roles



Aditya Kadarla
Project Manager
Quality Analyst & Tester



Shubham Sawant
Business Analyst &
Developer



Ravi Kumar Dabbada
Database Administrator

Team Member Roles



Vidisha Vijay Sawant
Developer



Kshitij Sharma
Developer



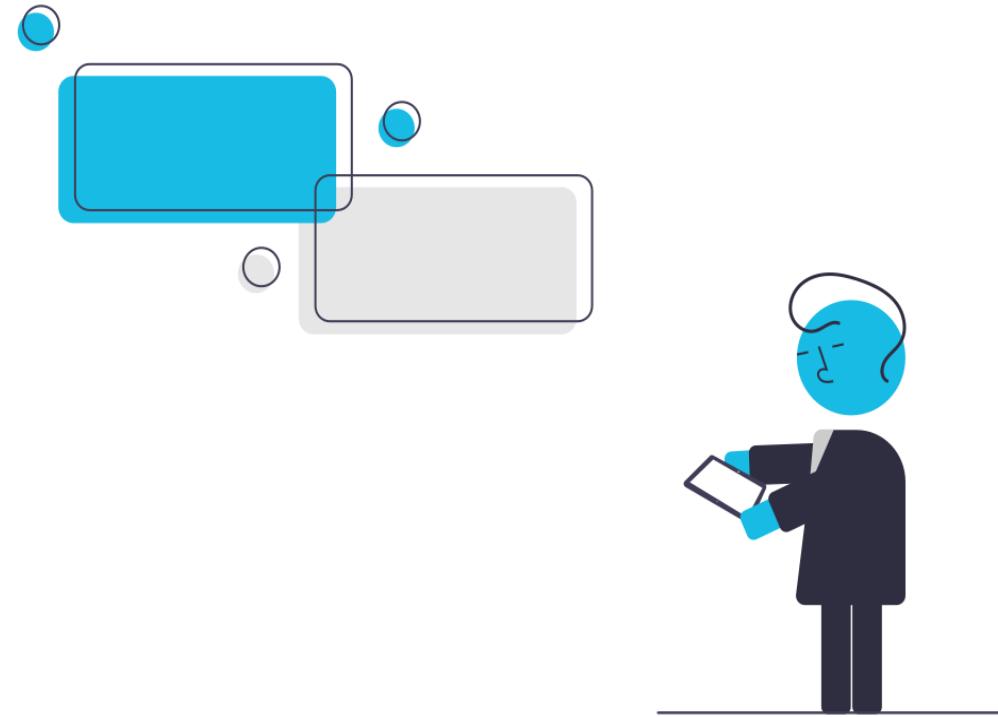
Femina Baldha
Developer

Problem Statement

Home services are an age-old concept. The “old way” of availing local home services was for servicemen (“handymen”) to market themselves through word of mouth, and then to use listing services such as Yelp. Local home services are inherently disorganized, with individuals usually running business operations. Services range from carpentry, plumbing, beauty, laundry, and so on. Think of anything you need in your home, that can’t be solved by buying a product. That is likely going to be solved by home services.

The trouble is, home services are not a commodity.

The core reason why people continued to rely on word of mouth after bad experiences, was because it was impossible to tell what you were getting into, even for something as “basic” as plumbing. How do you know the carpenter is good, or the plumber will do a good job? Sure, the industry is ripe for disruption, but how would it get disrupted?



Project Description

The "EasyWay" web application aims to aggregate utility services such as beauty, electrical maintenance, home cleaning, pest control, etc. The application would enable the end-user to select their preferred service, book an appointment at a convenient time, pay the resultant charge and give feedback. The application aims to be a one-stop shop that caters to all the utility needs of the end user. Our product promises easy booking and cancellation without extra charges, and you can maintain your booked services in one place easily.

Personas



Persona 1



Demographics

Name: Prathna De

Age: 28

Location: Jersey City, NJ

Job: Graphic designer

Salary: \$90000-\$95000/year

Family: Mom-Dad, elder brother

Profile

Prathna holds a Bachelor of Visual Communication (Graphic Design Major) from The University of Newcastle, Sydney, Australia with a Dean's Recommendation of Honours, and has over 5 years of experience in the field with multiple awards, including the 'Best of Brand Design' awarded by LinkedIn. She's a digital nomad and travels the world while freelancing & blogging.

Interests

- Blogging
- Traveling across the world
- Exploring new places
- Photography, Videography
- Designing on Adobe Illustrator
- Freelancing
- Playing music

Frustration

- Sometimes she couldn't take luggage with her while traveling and needs assistance to transfer/deliver her luggage or camera stuff safely to some location.

Goals

- Needs assistance with her accessories or luggage to deliver at the place where she has traveled.
- Safety assurance with the luggage as it can carry delicate stuff like cameras.

Persona 2



Demographics

Name: Angela Mathew

Age: 55

Location: Ontario, Ca

Job: Entrepreneur

Salary: Ca\$50000-Ca\$60000/year

Family: Two children and husband

Profile

Hospitality-focused, dedicated to excellence, and highly knowledgeable are just a few terms most often used to describe Angela. This Ontario native was immersed in her family's hospitality and the food service industry from an early age. Her father was an energetic and successful restaurateur in Ontario who kept her engaged in the business throughout her youth.

Interests

- Trying new food menu at home
- Attending food fairs
- Taking part in a food contest
- Conducting food competitions
- Preparing different cuisines for children
- Reviewing various restaurants

Frustration

- Finds difficulty in maintaining health
- Feels obesity
- Can't keep herself fit
- Disturbed mind due to obesity

Goals

- Needs fitness tips to remain fit
- Need a health instructor who can guide her after eating a variety of food
- Needs meditation and yoga tips

Persona 3



Demographics

Name: Victor Carlos

Age: 35

Location: Alabama, Ga

Job: Marketing Analyst

Salary: \$70000-\$85000/year

Family: Lives with his girlfriend

Profile

As a seasoned marketing analyst, Victor has spent the past 5 years working with companies to bring their products to the national stage. He owns a massive house in the City of Georgia; living with his girlfriend Lucy and a pet dog named Bruno. He is very self-groomed and tidy. He ensures that each project is well-researched with good examples.

Interests

- Reading novels
- Stay up-to-date with daily stock updates
- Loves animals, especially dogs
- Attending business fairs and workshops
- Loves to be fastidious

Frustration

- Owns a big house and finds it difficult to maintain it.
- Take care of his pet dog, Bruno, when he and his girlfriend Lucy are out for work tours.

Goals

- Need house cleaning services
- Need service to look after his pet dog
- Need a secure person to take care of his house when he is out on a work tour

MVP

(Minimum Viable Product)



Minimum Viable Product (MVP)

1: Homepage

2: Service Catalog

3: Cancel Booking

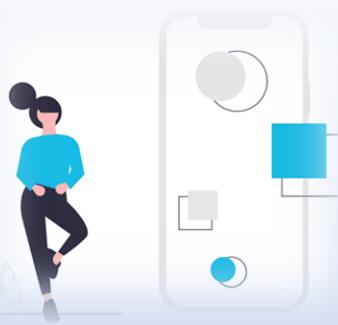
4: Registration – Customer and Professional

5: Login - Customer and Professional

6: Book – Calendar and Time

7: Booking Confirmation via email or in-app

Minimal Viable Product (MVP)



T - Mobile

Book

Email
Enter Your Email

Name
Enter Your Name

Phone No.
Enter Your Contact No.

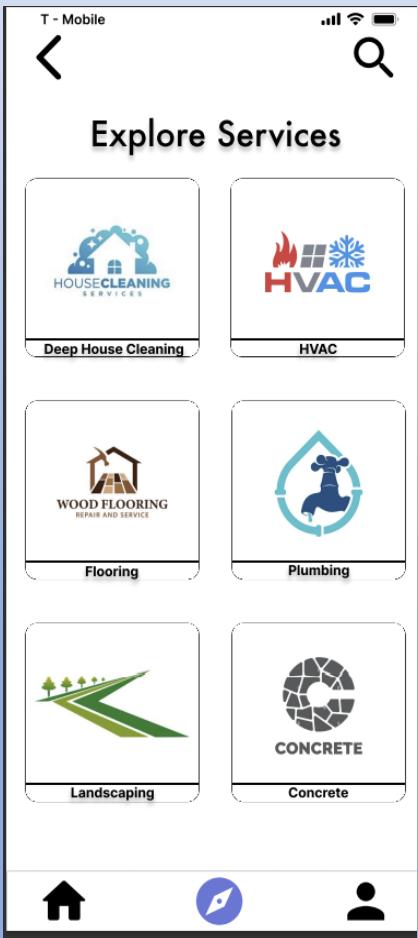
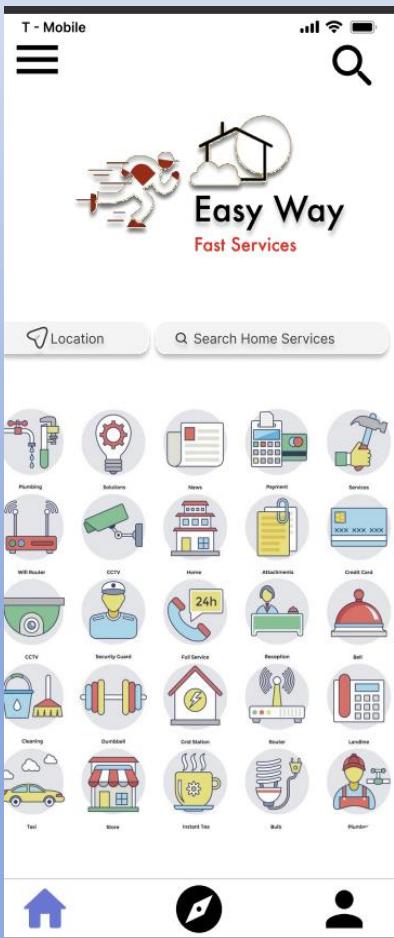
Preferred Date and Time
Enter Your Preferred Date and Time

Address
Enter Your Address

City Zip
Enter Your City Enter Your Zip

✓ Book

Home Search Profile

A screenshot of a mobile application booking form. It includes fields for email, name, contact number, preferred date and time, address, city, and zip code. A prominent purple "✓ Book" button is at the bottom. The header shows "T - Mobile" and the title "Book". The footer has standard navigation icons.

T - Mobile

Professional 1 Profile

Deep House Cleaning

Eric Deep House Cleaning Expert \$10/hr English, Spanish 5 star (102) reviews

Aditya \$15/hr English, Spanish, Hindi 4.5 star (82) reviews

Raul \$15/hr Spanish, French 4.5 star (76) reviews

Kalpit \$20/hr English, Hindi 4.5 star (78) reviews

Vidisha \$25/hr English 5 star (63) reviews

Fenna \$10/hr English, Spanish 4.5 star (149) reviews

Jacob \$15/hr English 4.5 star (87) reviews

Kim \$20/hr English 5 star (78) reviews

Pot \$15/hr Spanish 5 star (102) reviews

Home Search Profile

A screenshot of a service provider profile screen. It shows a detailed profile for "Eric" as a "Deep House Cleaning Expert" with a rate of \$10/hr, speaking English and Spanish, and a perfect 5-star rating from 102 reviews. It also lists recent reviews from other users. The header shows "T - Mobile" and the title "Professional 1 Profile". The footer has standard navigation icons.

Technologies

Front End



Back End / Server



Database



Testing



API



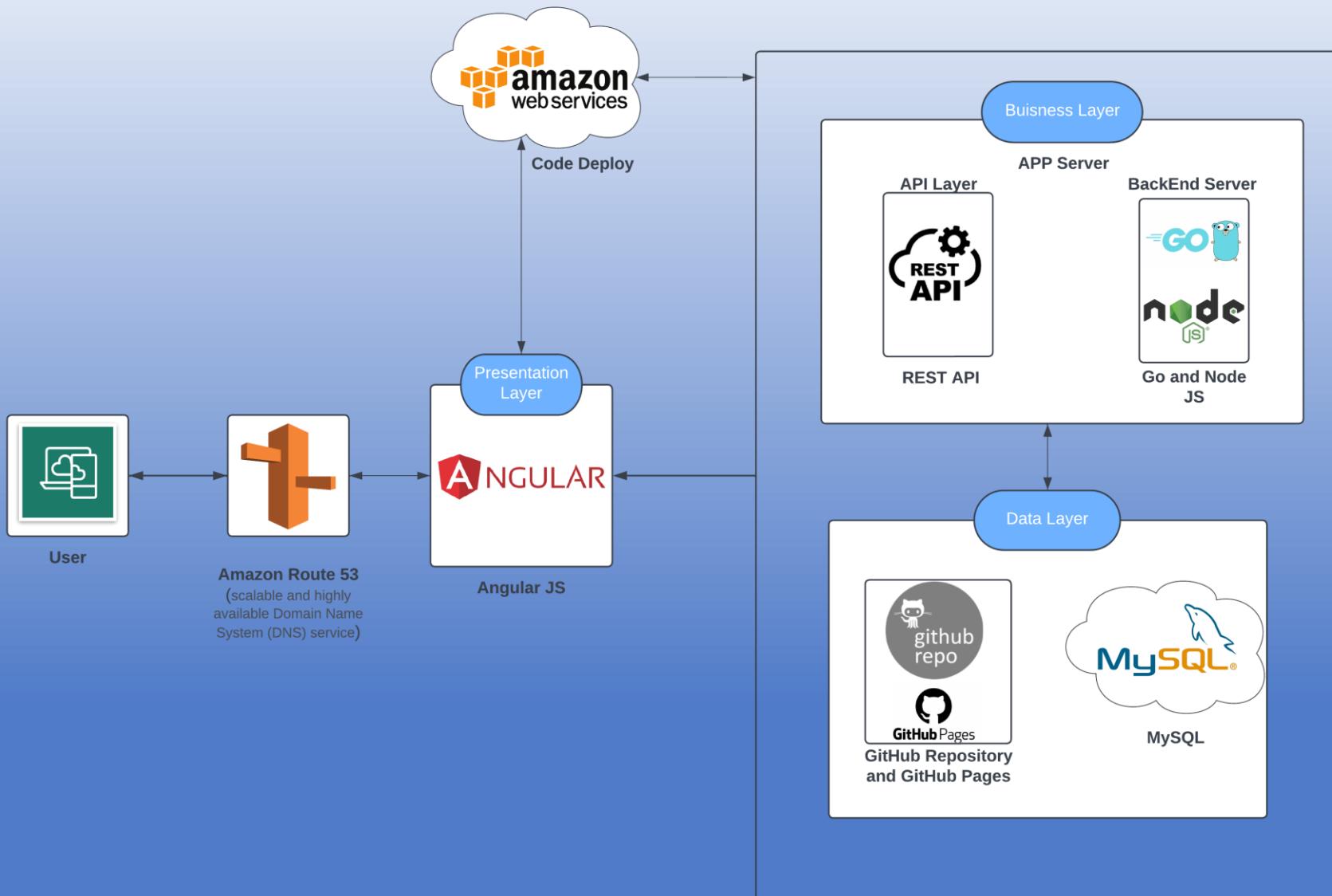
Tools



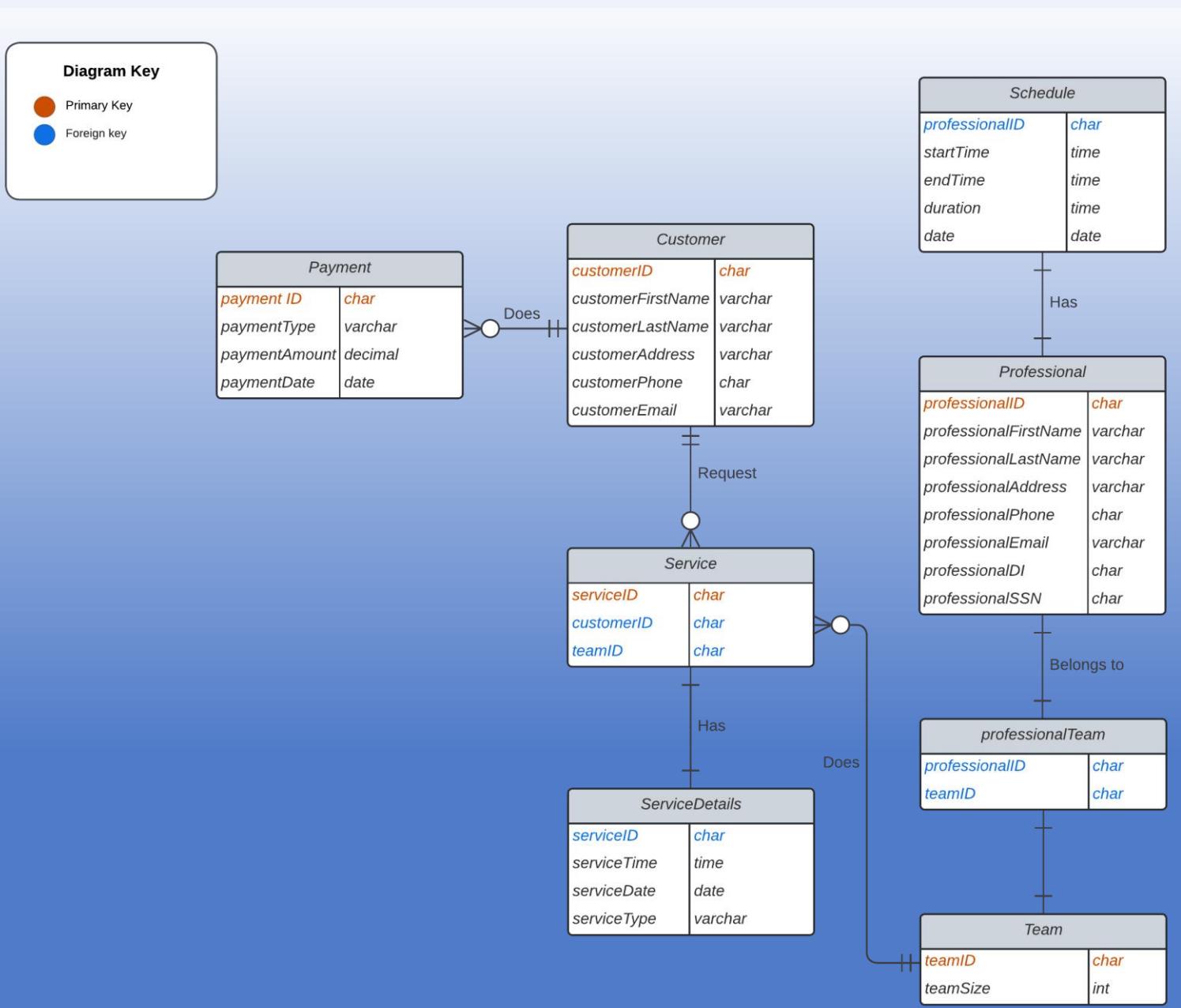
Architecture Diagram



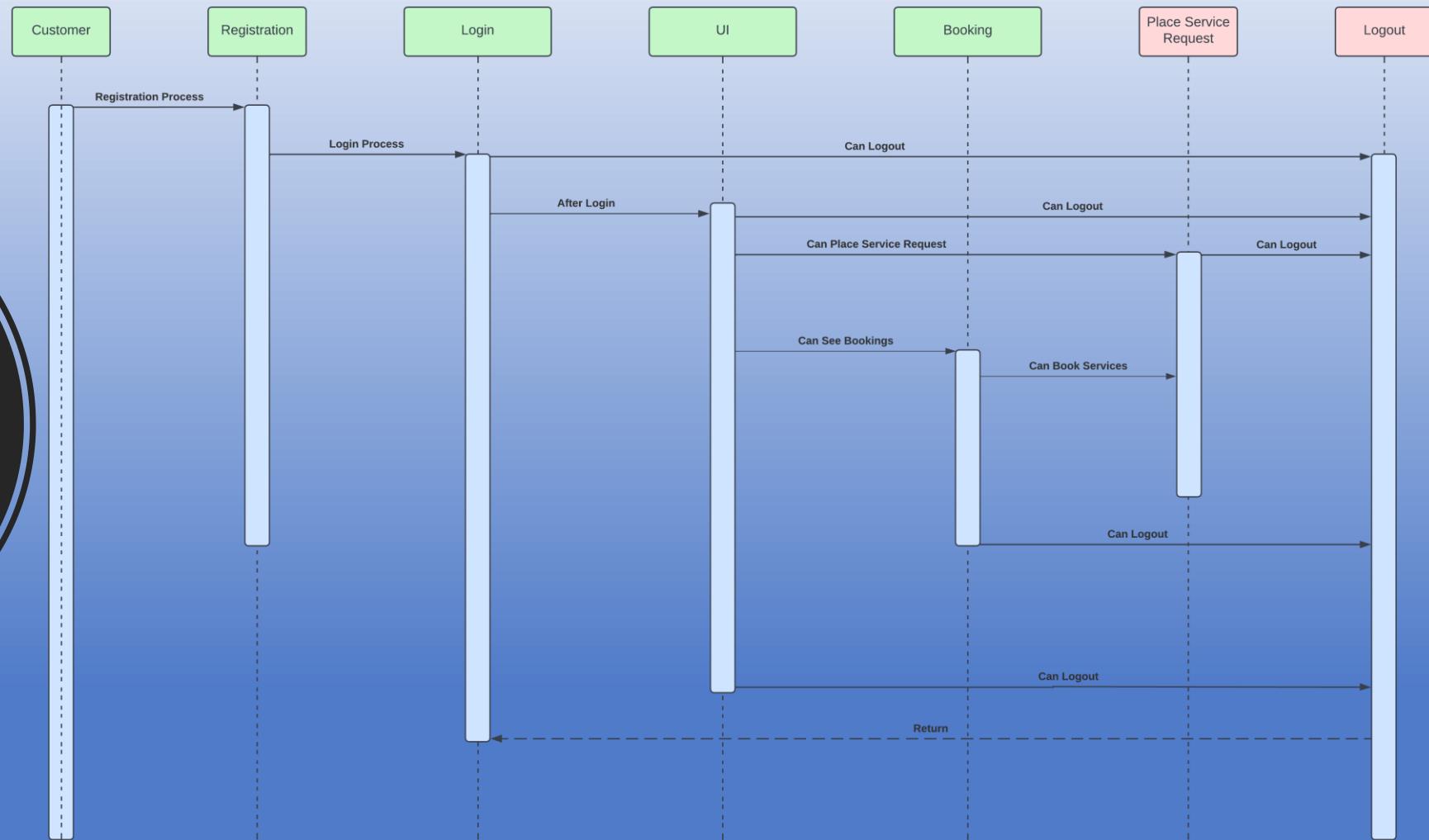
Conceptual Architecture Diagram



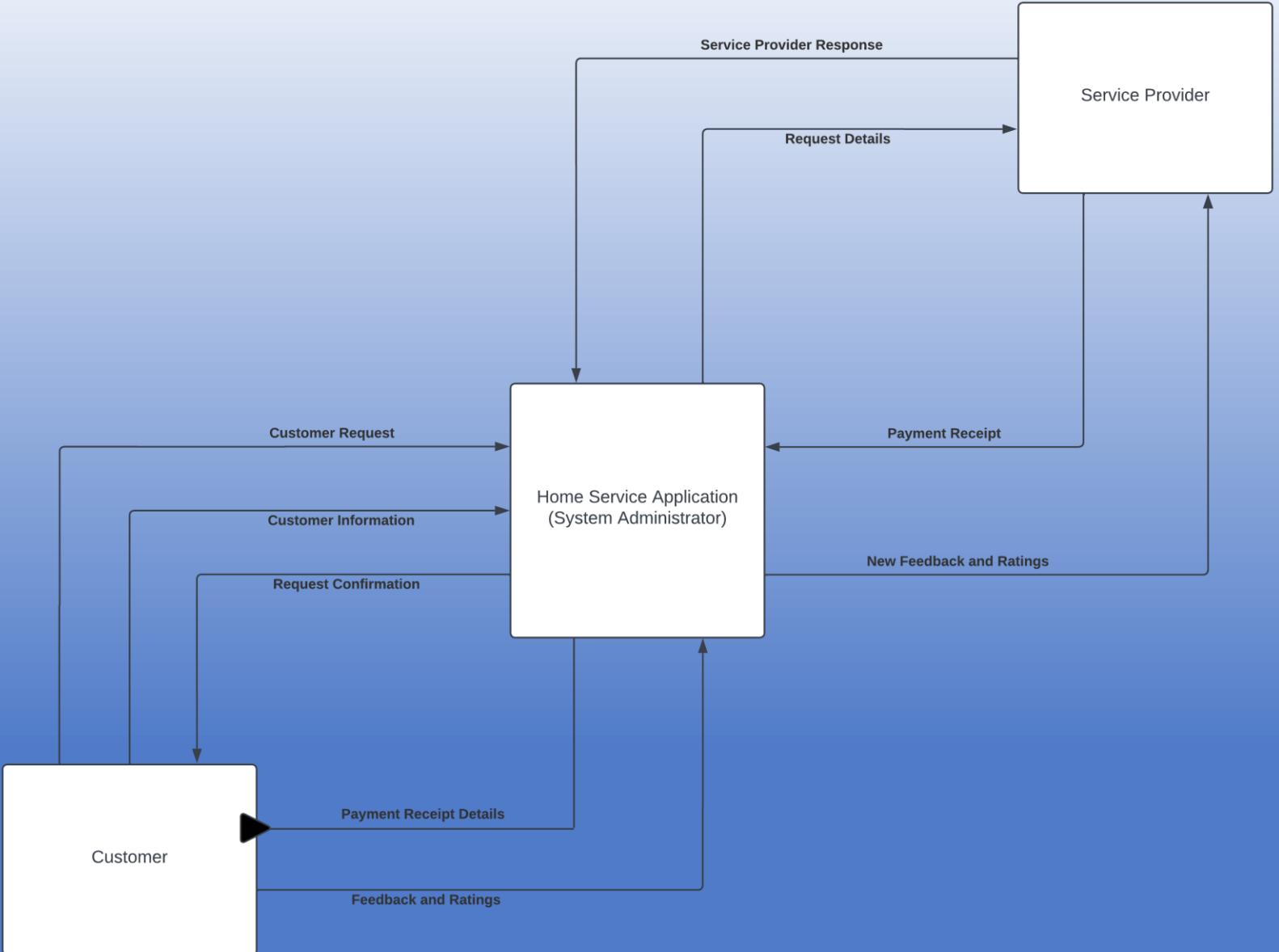
ERD Diagram



User Sequence Diagram



Dataflow Diagram Level 0





Sprint 3 Recap

Homepage

localhost:4200/home

EasyWay

EasyWay

One Click booking for your home services. On Demand.

My Bookings Checkout Services

Introducing the ultimate platform for on demand services

We help customers book reliable & high quality services for your home on demand. These services are delivered by highly trained professionals at your time and schedule.



localhost:4200/home



 Quality Assurance

We use industry grade equipment for the best in class service. We pride in our quality of service and have you cannot go wrong choosing us.

 Affordable Prices

We cut hair not wallets. We clean homes not your accounts. We believe that living a comfortable life should not break any banks.

 Trained Professionals

Our service personnel go through long training before they are approved to do your work. Whether its cleaning, plumbing, maintenance or grooming, our experts will handle it easily.

 Schedule Friendly

We understand that your schedule is important, which is why we help you be as flexible as possible. Choose from the day and time you feel is the best for you in one click during our checkout.

Service Catalog

localhost:4200/services

Services List



AC Maintenance

Any type of AC maintenance such as filter cleaning, part replacement, etc.

[Book Now](#)



Plumbing

Sanitary and household plumbing. No sewage service.

[Book Now](#)

localhost:4200/services



Saloon

Haircut, massage, nailwork, makeup, etc.

[Book Now](#)



Furniture Repair

Furniture frame repair, drilling, fitting new furniture, etc.

[Book Now](#)



Exterminator

Pest control, wildlife evac, alligator emergency, etc.

[Book Now](#)

Customer Profile Page

localhost:4200/profile

EasyWay

Home Book a Service My Bookings Profile Logout

Profile Settings



dummy
dummy@ufl.edu

Name: Dummy Duck

Gender: M

City: NJ

Save Profile

Services

- Home
- Terms
- Privacy Policy
- Returns & Refunds

About

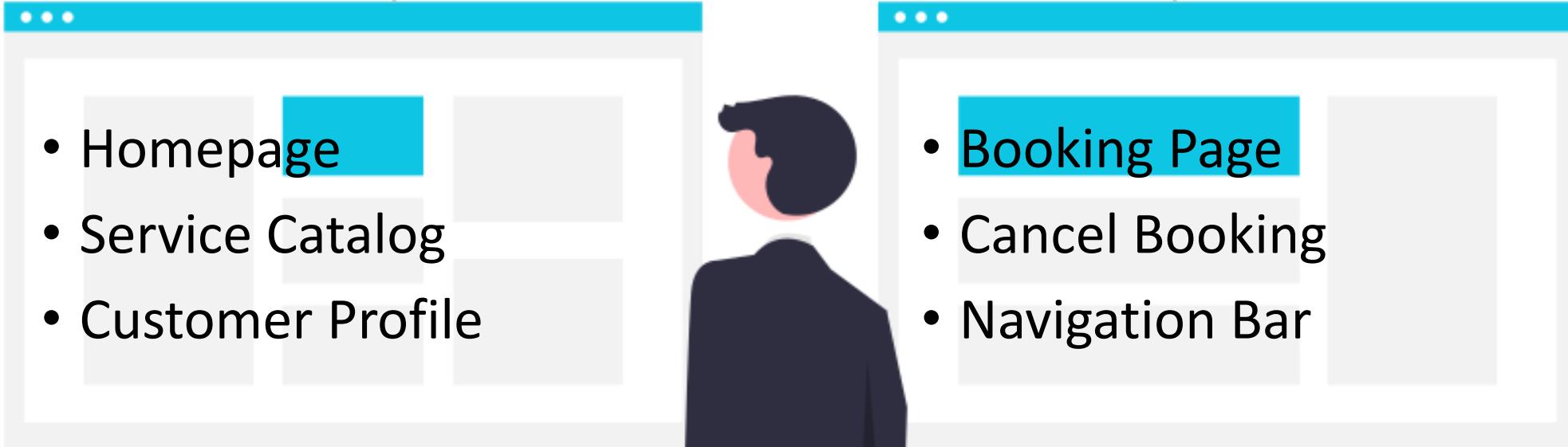
- Project
- Careers

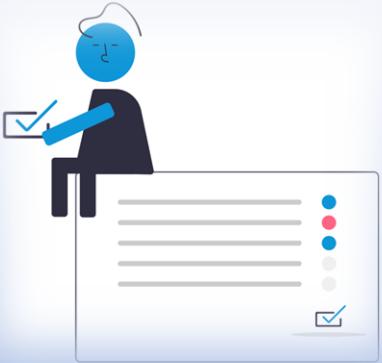
EasyWay

The platform helps customers book reliable & high quality services for your home on demand.
The services are delivered by highly trained professionals at your time and schedule.

Copyright EasyWay @ Fall 2022

Sprint 3 vs Sprint 4





Product Backlog

Issue Type	Key	Name
Story	DCS-45	As a customer I want to browse all the professional home services provided. So that I have a list to select the service I want.
Story	DCS-41	As a customer I want to able to submit feedback So that the website owners can consider my opinion or concern during future website updates
Story	DCS-40	As a customer I want to able to access quick services near me So that I will be able to book in a urgent situation at my house.
Story	DCS-39	As a customer I want to be access the services according to categories such as water, furniture, beauty, etc So that I will be able to access the see the services available and who the professionals are
Story	DCS-38	As a customer I want to be directly able to contact the technician via call/text So that I will be able to have a better service
Story	DCS-37	As a customer, I want to be able to prepone or postpone my booked service So that I can expect the professional on some other date or time.
Story	DCS-35	As a customer, I want to be able to add multiple address So that I can use them to schedule a service for my office.
Story	DCS-33	As a customer, I want to browse the service list So that I can get some information what does this particular service do.
Story	DCS-32	As a signed-in customer I want to able to comment on a blog post So that I can get feedback on issues

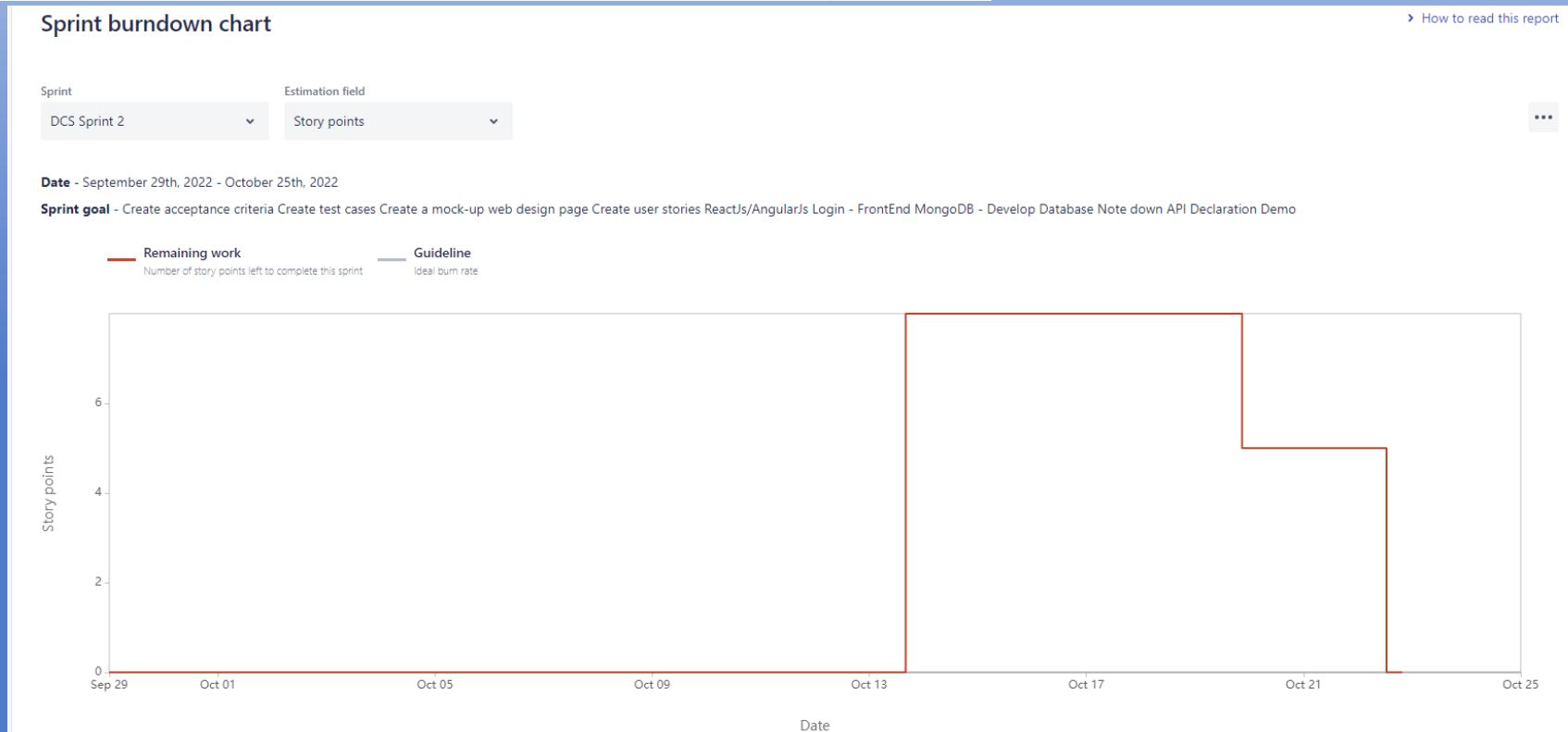
Sprint Summary





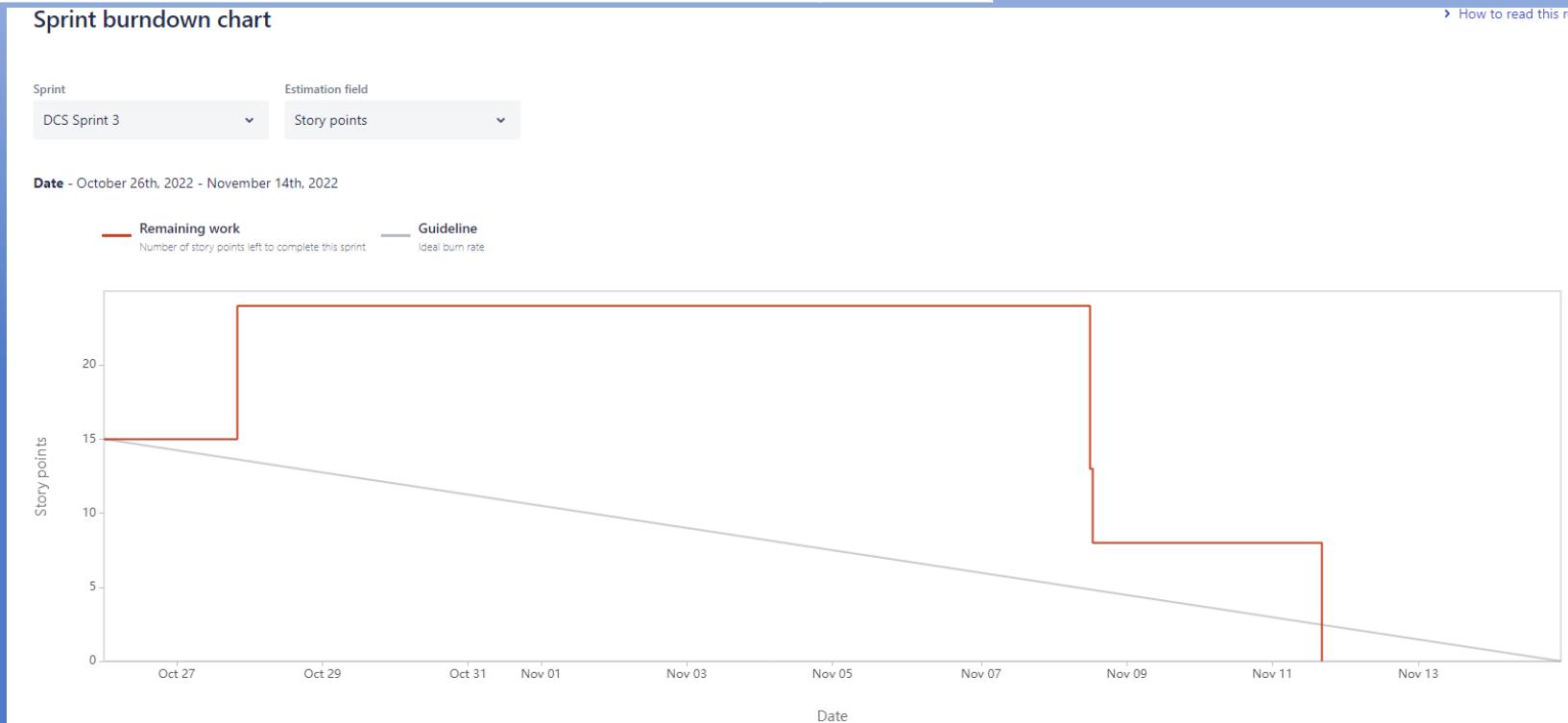
Issue Type	Key	Name
Task	DCS-6	Work on deliverable 1 presentation
Task	DCS-5	Establish weekly meetings
Task	DCS-4	Establish team roles
Task	DCS-3	Setup development tools (GitHub and Jira)
Task	DCS-2	Create a significant business application

Issue Type	Key	Name	Story Points Estimate
Story	DCS-14	As a signed-in customer, I want to log out So that I can have my privacy in the app.	3
Story	DCS-13	As a customer, I want to register myself to the application So that I can keep my account private and login using email/phone and password.	5
Story	DCS-12	As a customer, I want to login into the app, So that I can use it to store all my information.	5
Task	DCS-10	Create MVP Prototype - Figma	3



Issue Type	Key	Summary	Story Point Estimate
Story	DCS-51	As a customer, I want to browse all the services provided by the app, So that I have a list of professionals to select from and book them accordingly.	3
Story	DCS-49	As a customer, I want to create my profile, So that I can store my Name, Address, and Phone No. in it.	5
Story	DCS-48	As a customer, I want to browse the service list, So that I will be able to see what services this app offers.	3
Story	DCS-18	As a customer, I would like to have a landing page explaining all the features of the platform, So that I am motivated to register.	5
Task	DCS-17	Draft Technical Paper	8

› How to read this report



Sprint 4 Backlog / Sprint Backlog

Issue Type	Key	Name	Story Points Estimate
Story	DCS-52	As a customer, I want a navigation bar to go between pages, log in and out, and search for specific events so that I may use the app more effectively.	3
Story	DCS-50	As a customer, I want to see the services booked by me so that I can track them.	5
Story	DCS-24	As a customer, I want to be able to cancel my booked service so that I can not expect the professional to reach my home.	5
Story	DCS-23	As a customer, I want to choose the date and time of service, so it is available at my convenience.	5
Task	DCS-26	Finish Technical Paper	8

User Stories and Acceptance Criteria

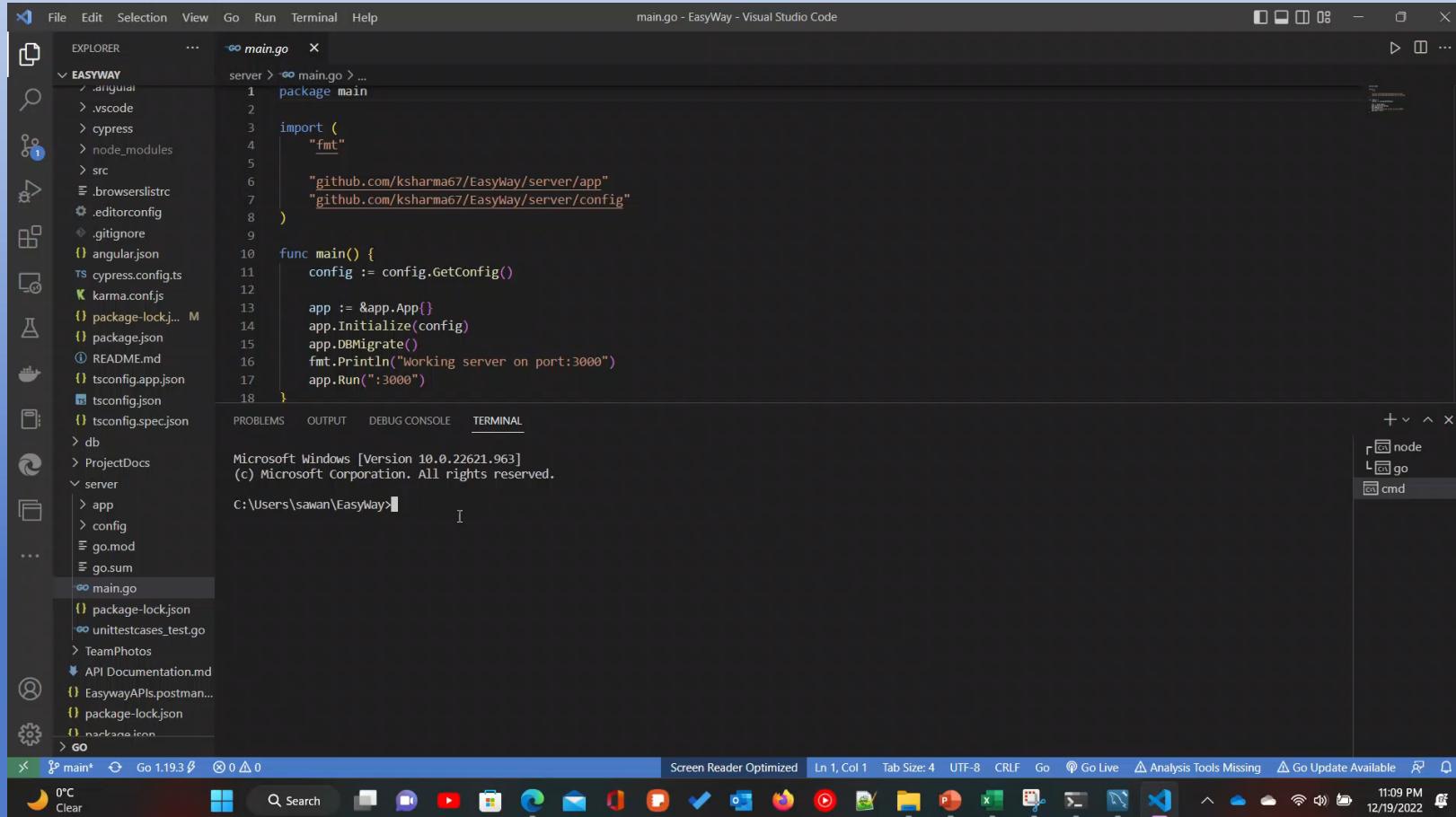


User Stories And Acceptance Criteria			
User Story ID	Summary	Status	Place
DCS-24	<p>As a customer, I want to be able to cancel my booked service So that I can not expect the professional to reach my home.</p> <p>Scenario: customer want to cancel a booking "Given I'm in a role of logged-in customer When I open the Booking History page Then the system shows me the confirmation tab for cancelling And when I click on Yes it should cancel my booked service.</p>	Done	Booking
DCS-50	<p>As a customer, I want to see the services booked by me So that I can track it.</p> <p>Scenario: Customer wants to track the appointment "Given I'm a logged-in customer When already scheduled an appointment Then I would be able to track the appointment date and time of the booking along with details of the technician.</p>	Done	Booking History
DCS-52	<p>As a customer, I want a navigation bar to go between pages, login and out, and search for specific events So that I may use the app more efficiently</p> <p>Scenario: Customer wants to navigate between pages "Given I'm in the role of a guest customer When I click on any tab on the header of the Landing Page Then the system should redirect me toward the clicked tab And the redirect page should be loaded.</p>	Done	Navigation
DCS-23	<p>As a customer, I want to choose the date and time of the service So that it is available at my convenience</p> <p>Scenario: Customer wants to see the available date and time "Given I'm in the role of guest customer When I open the services catalog page Then I click on one of the services it redirects me to the booking page And I should be able to see the available dates and times to book.</p>	Done	Booking

Testcases

User Story ID	Unit to test	Assumptions	Test data	Steps to be executed	Expected Results
DCS - 12	Login	Login should be successful	Email - test@easyway.com, Password - test123	Homepage -> Login	Check results on entering valid User Id & Password
DCS - 12	Login	It should show an error as "Invalid Username or Password"	Email - test@easyway.com, Password - test	Homepage -> Login	Check results on entering Invalid User ID & Password
DCS - 12	Login	It should show an error as "Invalid Username or Password"	Email - easy@easyway.com, Password - test	Homepage -> Login	Check response when a User ID is Empty & Login Button is pressed
DCS - 13	Sign Up	Sign Up should be successful	Email - any, Password - anything in between 8 to 16 char	Homepage -> Sign Up	Check results on entering valid User Id & Password
DCS - 13	Sign Up	It should show an error as "Username already in use"	Email - test@easyway.com, Password - test123	Homepage -> Sign Up	Check results on entering Already in Used User ID
DCS - 13	Sign Up	It should show an error as "Enter the Password with given parameters"	Email - test@easyway.com, Password - test	Homepage -> Sign Up	Check response when a Password is containing all the given parameters
DCS - 49	Profile	Profile creation should be successful	Email - test@easyway.com, Password - test	Homepage-> Login-> Profile	Check all the details filled with valid zip codes and phone numbers.
DCS - 49	Profile	Show an error with missing fields	Email - , Password - test	Homepage-> Login-> Profile	Check to missing/mandatory fields*
DCS - 18	Homepage	Services should be categorize and listed	localhost:4000/services	Homepage	Check if the categories are correct
DCS - 48	Services	Display service catalog	db.getCollection("catalog").find();	MongoDB -> use Easyway	
DCS - 51	Professionals	Display list of professional	db.getCollection("professional").find();	MongoDB -> use Easyway	
DCS - 49	Customer	Insert a customer	db.customer.insert({name:"customerName",customerEmail});	MongoDB -> use Easyway	Create a new user in customer database
DCS - 49	Customer	Display all the customers	db.getCollection("customers").find();	MongoDB -> use Easyway	
DCS - 18	Homepage	Customers should be able to access the homepage	localhost:8080	Homepage	Once directed with url, you will be first redirected to homepage.
DCS - 0	Dummy Data	Display all collections	show collections	MongoDB -> use Easyway	All tables should be listed
DCS - 43	Forgot password	Should direct to the email to reset the password		Homepage-> Login -> Forgot Password	Password Reset and directed to login page again
DCS - 24	Homepage	Customer should be able to search the desired services on search box		Homepage-> Search box	Homepage must provide the search box for user to search for desired services.

Integration Testing on MVP



The screenshot shows a Visual Studio Code interface with the following details:

- File Explorer:** Shows the project structure under the folder "EASYWAY". The "server" directory contains "app", "config", "go.mod", "go.sum", "main.go", "package-lock.json", "unittestcases_test.go", "TeamPhotos", "API Documentation.md", "EasywayAPIs.postman...", and "package-lock.json".
- Code Editor:** The "main.go" file is open, displaying the following Go code:

```
1 package main
2
3 import (
4     "fmt"
5
6     "github.com/ksharma67/EasyWay/server/app"
7     "github.com/ksharma67/EasyWay/server/config"
8 )
9
10 func main() {
11     config := config.GetConfig()
12
13     app := &app.App{}
14     app.Initialize(config)
15     app.DBMigrate()
16     fmt.Println("Working server on port:3000")
17     app.Run(":3000")
18 }
```
- Terminal:** The terminal window shows the command prompt: Microsoft Windows [Version 10.0.22621.963] (c) Microsoft Corporation. All rights reserved. The current directory is C:\Users\sawan\EasyWay>.
- Status Bar:** Shows the Go version (Go 1.19.3), screen reader optimization, tab settings (Ln 1, Col 1, Tab Size: 4), character encoding (UTF-8, CRLF), go live status, analysis tools missing, update available, and system information (0°C, Clear, 11:09 PM, 12/19/2022).

Stories Completed and Stories not completed

Issue Type	Key	Name	Status
Story	DCS-52	As a customer, I want a navigation bar to go between pages, log in and out, and search for specific events so that I may use the app more effectively.	Done
Story	DCS-50	As a customer, I want to see the services booked by me so that I can track them.	Done
Story	DCS-24	As a customer, I want to be able to cancel my booked service so that I can not expect the professional to reach my home.	Done
Story	DCS-23	As a customer, I want to choose the date and time of service, so it is available at my convenience.	Done
Task	DCS-26	Finish Technical Paper	Done

Metrics



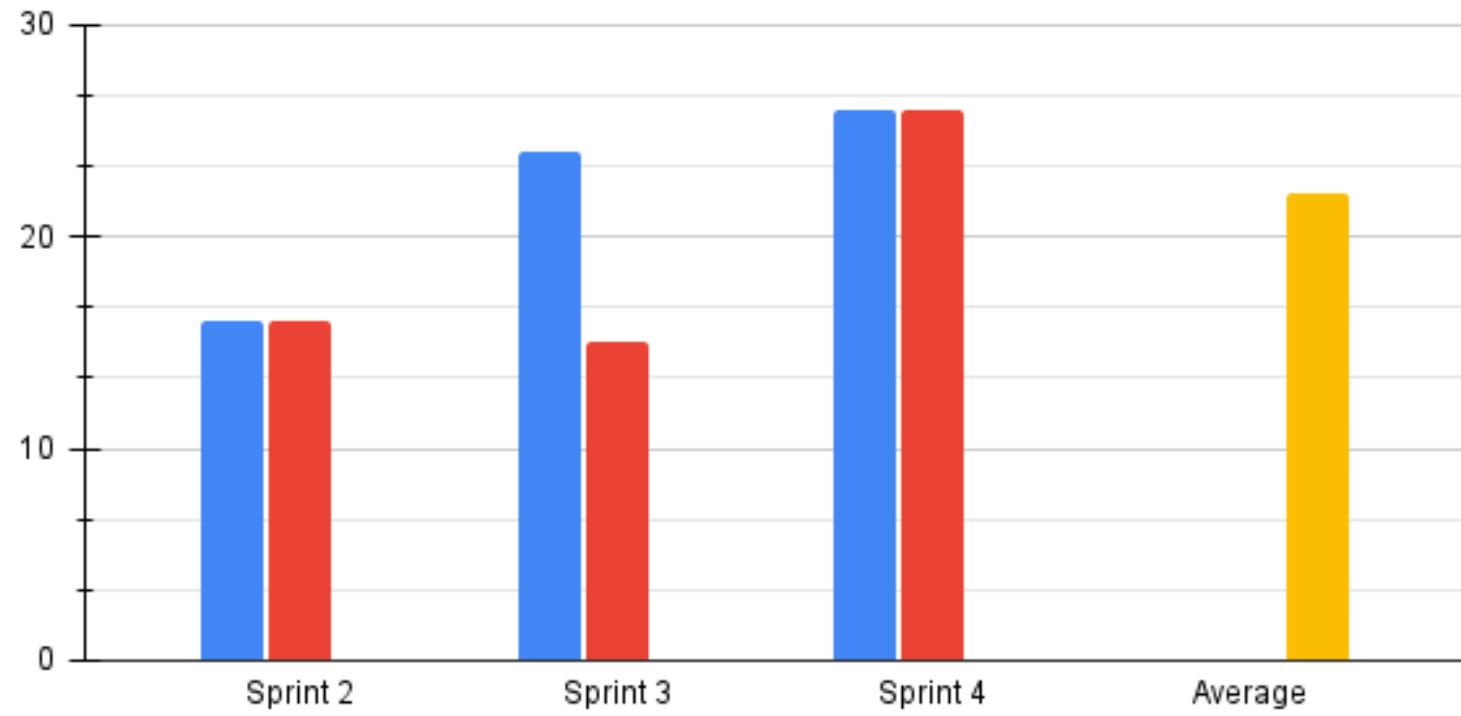
Team Velocity Chart



Team History Velocity

Sprint 2, Sprint 3, Sprint 4 and Average

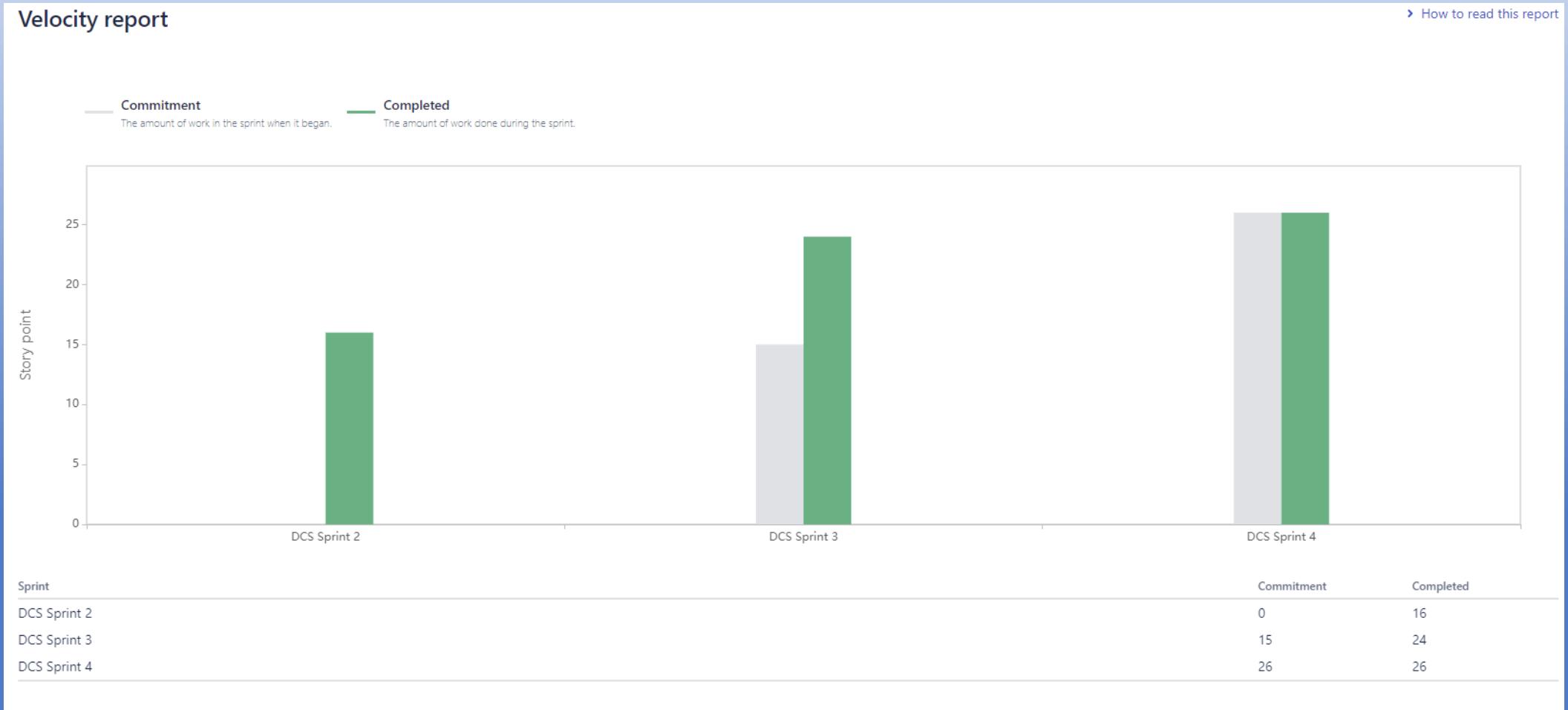
Completed Commitment Average



Burndown Chart



Committed / Completed Ratio



Retrospective



What Went Well



Division of tasks was overall done well, with regards to Frontend and Backend.



Completing our work on time.



Using GitHub as our code collaboration tool and netlify as our cloud hosting provider.



Unit Testing and Integration Testing were done with a 100% passing score.

What Needs Improvement



Team Engagement was low.



Communication was occasionally lacking such as unanswered messages on Slack and WhatsApp



The retrospective should be noted by each team member within the sprint using stickies/ miro board.

Next Steps



Team members need to take more initiative.



Establish a better availability window for meetings.



Sprint-planned items need to be enforced to avoid mid-sprint scope changes.



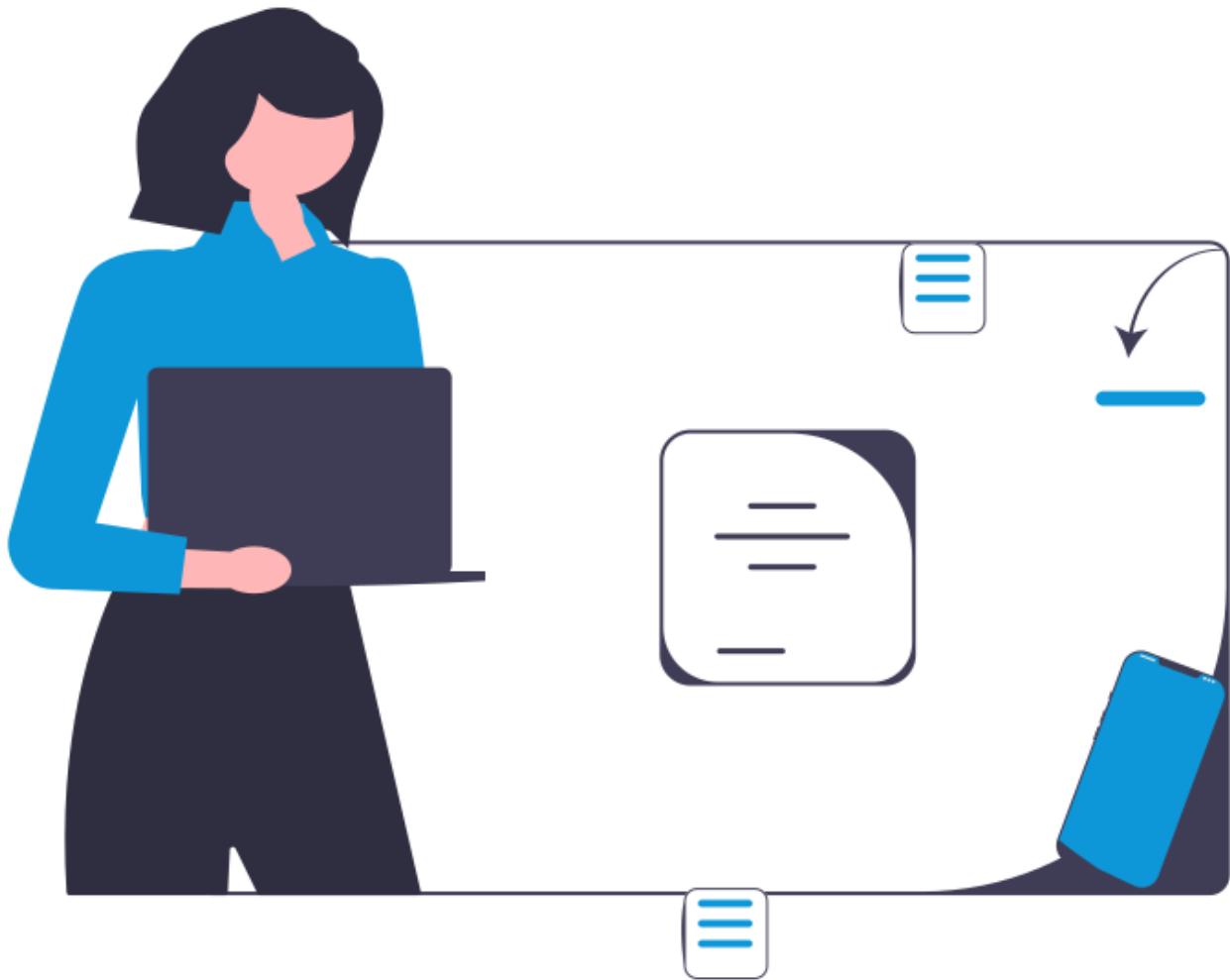
We need to work on stories and tasks in a timely manner.

Sprint 5

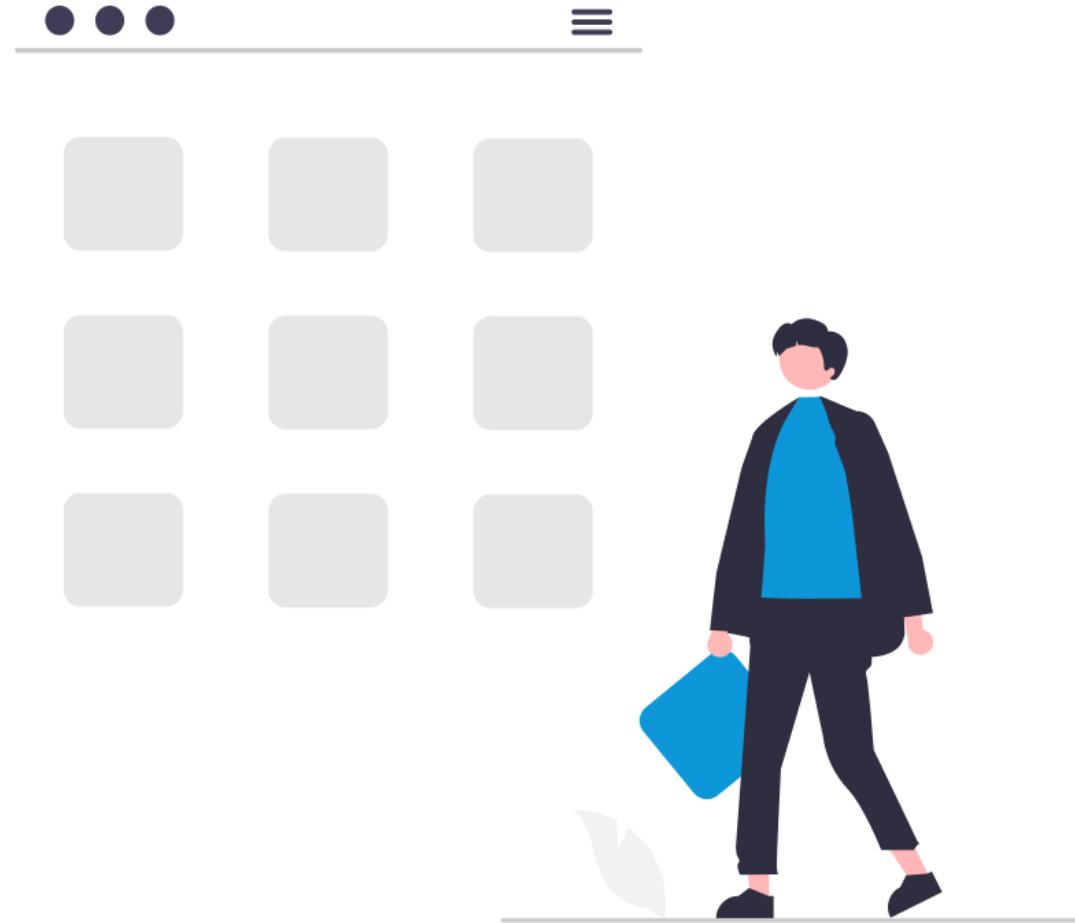
Issue Type	Key	Name	Story Points Estimate
Task	DCS-57	Research on image classification ML algorithms	8
Story	DCS-46	As a customer, I want to email customer service So that I can get my issue resolved	3
Story	DCS-44	As a customer I want to able to recover the passwords to my account So that I will be able to access my account in case i forgot password.	3
Story	DCS-43	As a customer I want to be able to recover my account customer ID/Name So that I will be able to access my account in case i forgot the account.	5
Story	DCS-42	As a customer, I want to able to search on the webpage, So that I can find necessary information	5

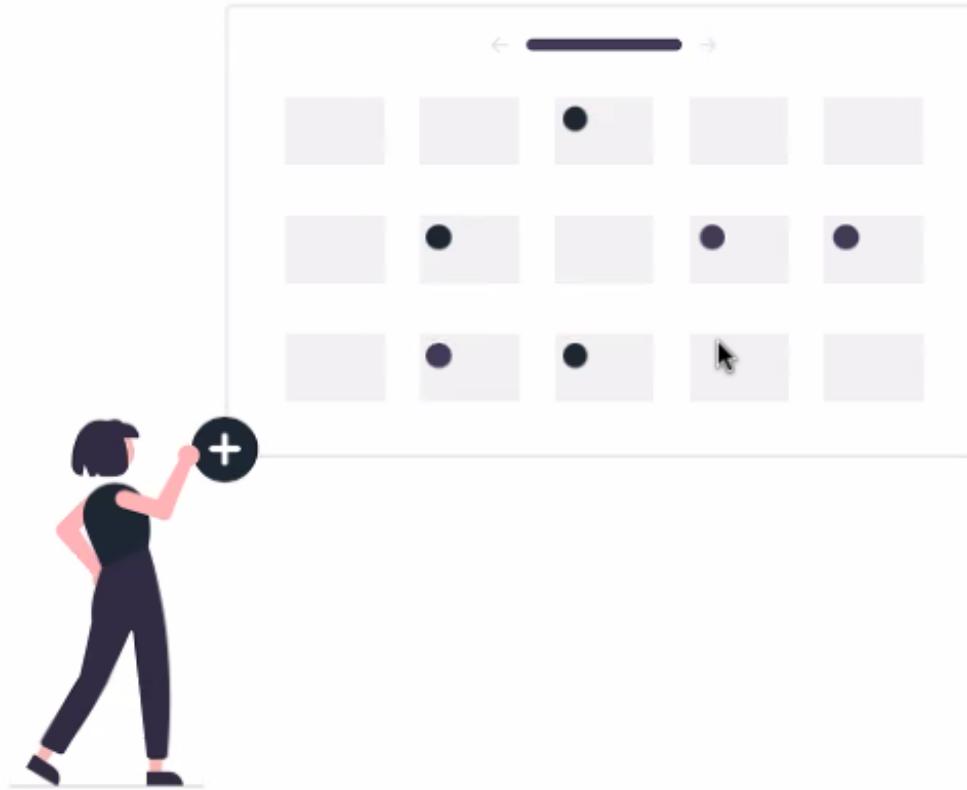
Project Demo

Sprint 4



Slides App Screenshot





AC Maintenance

Price: \$80

Enter date for service

12/19/2022

Enter time for service

12:30 PM

Book

Booking Page

Booking Page

EasyWay

Home Book a Service My Bookings Profile Logout

My Bookings

Active Bookings

Plumbing

Sanitary and household plumbing. No sewage service.

2022-02-15 12:30 to 13:30

Cancel

AC Maintenance

Any type of AC maintenance such as filter cleaning, part replacement, etc.

2022-02-15 16:30 to 17:30

Cancel

Cancelled bookings

Book a Service

Cancel Booking

Active Bookings

AC Maintenance

Any type of AC maintenance such as filter cleaning, part replacement, etc.

2022-02-15 12:30 to 13:30

Cancel

Cancelled bookings

Plumbing

Sanitary and household plumbing. No sewage service.

2022-02-15 16:30 to 17:30



Book a Service

Navigation Bar

EasyWay

Home Book a Service My Bookings Profile Logout

Services List



AC Maintenance

Any type of AC maintenance such as filter cleaning, part replacement, etc.

Book Now



Plumbing

Sanitary and household plumbing. No sewage service.

Book Now

Slides for API

The screenshot shows a Swagger UI interface for a `GET /user/{username}` endpoint. The **Parameters** section includes a required `username` parameter of type `string (path)`. The **Responses** section shows a successful `200` response with a JSON schema example:

```
{  "id": 0,  "username": "string",  "firstName": "string",  "lastName": "string",  "email": "string",  "password": "string",  "phone": "string",  "userStatus": 0}
```

It also lists `400 Invalid username supplied` and `404 User not found` error responses.

The screenshot shows the main page of the **Swagger EasyWay** API documentation at `http://localhost:3002/swagger.json`. The page title is **Swagger EasyWay 1.0.0**. It features a dropdown for **Schemes** set to `HTTPS` and an **Authorize** button. The **user** operations section is expanded, showing methods for creating users (`/user/createWithArray`, `/user/createWithList`), getting a user by name (`/user/{username}`), updating a user (`/user/{username}`), deleting a user (`/user/{username}`), and logging in (`/user/login`). Other sections like **store** and **petstore** are collapsed.

GitHub Link

[HOME · KSHARMA67/EASYWAY WIKI
\(GITHUB.COM\)](#)



Technical Paper Link

[EASYWAY TECHNICAL PAPER \(GITHUB.COM\)](#)

Installation Manual Link

[EasyWay/Installation Manual.pdf at main · ksharma67/EasyWay
\(github.com\)](#)



API Documentation

[EasyWay/API Documentation.pdf at main · ksharma67/EasyWay
\(github.com\)](#)

Live Application Demo



Live Application Demo

The screenshot shows a Visual Studio Code interface with the following details:

- Title Bar:** main.go - EasyWay - Visual Studio Code
- File Menu:** File, Edit, Selection, View, Go, Run, Terminal, Help
- Terminal:** The terminal tab is active, showing the command "main.go".
- Explorer:** The sidebar shows a project structure for "EASYWAY".
 - Angular folder: .vscode, cypress, node_modules, src, .browserslistrc, editorconfig, .gitignore, angular.json, cypress.config.ts, karma.conf.js, package-lock.json, package.json, README.md, tsconfig.app.json, tsconfig.json, tsconfig.spec.json.
 - Server folder: db, ProjectDocs, server (containing app, config, go.mod, go.sum, main.go, package-lock.json, unittestcases_test.go, TeamPhotos, API Documentation.md, EasywayAPIs.postman..., package-lock.json).
 - GO folder: package.json.
- Code Editor:** The main editor area displays the "main.go" file content:

```
1 package main
2
3 import (
4     "fmt"
5
6     "github.com/ksharma67/EasyWay/server/app"
7     "github.com/ksharma67/EasyWay/server/config"
8 )
9
10 func main() {
11     config := config.GetConfig()
12
13     app := &app.App{}
14     app.Initialize(config)
15     app.DBMigrate()
16     fmt.Println("Working server on port:3000")
17     app.Run(":3000")
18 }
```
- Bottom Status Bar:** Screen Reader Optimized, Ln 1, Col 1, Tab Size: 4, UTF-8, CRLF, Go, Go Live, Analysis Tools Missing, Go Update Available, 11:00 PM, 12/19/2022.
- Taskbar:** Shows various pinned icons including Weather (0°C), Search, Task View, YouTube, Mail, Microsoft Edge, File Explorer, Firefox, and others.

Thank You

