

Assignment 3

TEAM-ATM

ATM SNEAKER APP

THE TEAM

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Table of Contents

Table of Contents

Project Background

Motivation

People

Zixun Zhou

Interest and skills

Individually assigned role

Yuliang Lei

Interest and skills

Individually assigned role

Qiheng Chen

Interest and skills

Individually assigned role

Deyang Bao

Interest and skills

Individually assigned role

Haoming Tian

Interest and skills

Individually assigned role

Zhentao Ma

Interest and skills

Individually assigned role

Aim and Goals

Aim

Goals

Scope
Project Progress
Description
Outcomes to date
Extended Viable Features
Scope creep
Windfall
Progress
Testing
Tools and Technologies
Challenges and Learning
Project Processes
Future Development

Project Background

Motivation

The reason why our group has chosen this project is because currently there aren't many platforms that targets specifically towards the buyer and seller for sneakers. And this project idea also relates to our group member's individual interest as sneaker collectors. This project is also able to enrich our IT skills because currently the knowledge required to create this project is beyond our skill level.

People

Zixun Zhou S3692845

I am from China, Now studying IT major at RMIT university, I like IT very much because I have been in touch with computers since I was very young. Although there is no high technology now, I still like IT.

I am very interested in Java, I am good at HTML and CSS, and some python. I like teamwork very much; I can do my homework and make friends.

I can use HTML and CSS to edit web pages, but I am not so proficient. In the process of doing homework, there are some places I need to learn while doing.
I want to be a website designer. And can do some paperwork.

Yuliang Lei s3704446@student.rmit.edu.au

An IT major at RMIT who loves information technology, particularly in HTML&CSS

I'm interested in HTML/CSS/PHP, Database Management

Weaknesses in Java programming

I hope I can play a role in Web programming & Database Management

Qiheng Chen S3714084

I am interest in IT because it's a technique most people don't have. The first time I've start learning IT was in year 5, my primary school conducted a Q-Basic course. But now I've graduated from RMIT diploma of IT my objective is learn about HTML. RMIT attract me because RMIT's facilities are among the most advanced in Australia

I'm interested in HTML and Python. As this project I'm planning to do some HTML coding and design features about this application

Java is the weaker point for me, but our team won't use Java until we finish our website

I'm a java developer in the project

Deyang Bao S3712374

I currently study year 1 of information technology in RMIT now. I am kind of new in IT because I have no experience in IT before, but I still love it. Little skills but bunch of interest is the best way to describe me.

I am good at get inspiration for project and user center design

My weaker point is creating a new design for website in this project, because I have less inspiration than other teammate

I want to be a supporter for other teammate with any part need help

Haoming Tian s3814753

Currently studying IT at RMIT, I've always been interested in IT and I have done some fundamental subjects during high school.

I'm interested into Java but I'm still very new at this programming language.

Time management and html are my biggest weaknesses and I hope I can overcome them over the course of this semester with the help from my team

I'm confident at doing documentations.

Zhentao Ma S3866063 s3866063@student.rmit.edu.au

This is my first semester at RMIT. I am very interested in IT, and I have learned a lot of knowledge about IT in the previous study. I'm good at database and Java. In this project I'm not good at the HTML and CSS part. I hope I can learn new knowledge with the joint efforts of the group.

Aim and Goals

AIM:

Our team ATM wants to create an app that is simple to use but very helpful to sneaker collectors. The aim of the "ATM Sneakers" application is to provide a trustworthy platform for all sneaker collectors to look for their favourite products and also discuss about them. Our platform is very friendly to use and also convenient, users are able to look for their wanted products and compare prices so they can make the most out of their money. Even if users are not happy with the current pricing, each week, users are informed about new sales so they can buy them later when the prices drop. The application supports both iOS and Android devices so most users are able to have access to the application.

Goals:

Our application has a number of goals in order to achieve the aim.

Search Function:

The search function is one of the most important features for the application. This goal is about allowing the user to search for their desired product directly through product name, brand or categories. This goal provides users a simple tool to help users to look for the product they are planning to buy easily by entering just some keywords or the name of the brand.

Account Management:

This goal is all about letting the users to create individual accounts and log into their accounts so they can view their list of products in their shopping cart. The users could also upload any products they wish to sell through the platform. This feature is very helpful at assisting users to manage their sells or shopping plans. Users only need to sign up for a new account and update their personal information such as email and addresses. All the information is stored into a database and users could update their account information at any time.

Nearby Sellers:

the application will allow users to view the map of nearby sellers that are willing to sell their sneakers. This feature allows users to look for sellers nearby and pick any products they bought themselves.

Weekly sale:

at the beginning of each week, users will receive notifications about a list of products on sale so customers are able to purchase any discounted products they wanted.

Shopping Cart:

This goal is about allowing users to add items they are willing to purchase now or later into their shopping cart. Shopping cart are able to keep track of the price of all the items listed in it and calculate the overall cost with all the items selected. This feature helps the users to keep track of products they wanted, and when a price drop happens, the application will send a notification to the user, so users are able to notice it quickly.

Scope:

We have listed all the features that are needed in the working prototype of the application.

Project goals	Deliverable / outcomes	
	Design/front-end	Back-end
Search function(1)	F1.1 function prototype	B1.1
	F1.2 search bars	B1.2 database Database setup Database design
	F1.3 search result	B1.3 data access Sends search request to database Get result and send to front end

	F1.4 result display	
Account Management(2)	F2.1 function prototype	B2.1 create new user in database with sign up form
	F2.2 login	B2.2 sends link to user registered email
	F2.3 sign up	B2.3 activate account
	F2.4 profile	B2.4 update profile changes
Nearby Sellers(3)	F3.1 function prototype	B3.1 connect to map
	F3.2 locations layout	B3.2 get locations of sellers and sends to front end
	F3.3 display in map	
Weekly Sale(4)	F4.1 function prototype	B4.1 products added to weekly sale list
	F4.2 display products on sale	
	F4.3 sends notifications	
Shopping cart(5)	F5.1 function prototype	B5.1 products added to shopping cart list
	F5.2 add to shopping cart button in product page	B5.2 get price of products
	F5.3 display overall cost	

Project Progress

Description

First, we held a group meeting to discuss the theme of the project. After discussion, we finally chose the app for selling sneakers, because sneakers are not only the common hobby of our team members, but also the market of this kind of APP in Australia is almost blank. Then we got into the planning phase and discussed the features needed for the app. This step is not very smooth, because we have never done this kind of project before, so we can only determine the function we need by analyzing other apps of the same type. Over time, we listed the necessary features, as well as some extensions. Then we listed the steps required for the development of each function, among which the time

planning was a difficult problem for us, because we did not know how to manage the time properly. This problem was clearly exposed in the later steps.

Then we started developing the project. In the part of the website, some of our team members are good at web page programming, so we went smoothly in this part, but we did not know how to upload to AWS. However, this problem was solved in a very short time. At the same time, we were developing the APP. We divided tasks equally among each team member and insisted on meeting at least once a week to exchange problems we encountered.

But the process is not very well, first of all, we don't know how to design animation was solved only after this on consulting a large amount of data, but it took us a lot of time to learn, cause is not completed within the prescribed period of time needed for the project, which affect the later development stage, cause the backlog of projects, and even some demand missed the delivery time stipulated by the customer, the problem continues to affect our to the end of the project, we regret that we failed to complete the scoring system and shielding word check system. We have also made changes to the project content. For example, we planned to allow QR code functionality during the project planning phase, but that was so much beyond our capabilities that we had to replace it with another achievable feature.

In this project, we learned a lot of experience and knowledge, especially project management. At the same time, we have learned many valuable lessons, especially time management. This will be of great help to our future projects, so that we can finish them more efficiently.

Outcomes to date

Prototype (Mock-ups)

MVF 1: The app will support 3 different categories for different types of shoes: skate shoes, basketball shoes and runners.



sneakers type

- ☐ Running
- ☐ Basketball
- ☐ Skateboard

brands

- ☐ Nike
- ☐ Jordan
- ☐ Adidas
- ☐ Converse
- ☐ New Balance

more...

size

- ☐ 4
- ☐ 5
- ☐ 6



sneakers type

- ☐ Running
- ☒ Basketball
- ☐ Skateboard

brands

- ☐ Nike
- ☐ Jordan
- ☐ Adidas
- ☐ Converse
- ☐ New Balance

more...

size

- ☐ 4
- ☐ 5
- ☐ 6

MVF 2: Admin is able can upload weekly posts at the banner section of the app.



weekly post



sneakers 25

Before: \$450

Now: \$320

MVF 3: Enter the sneakers' detail page, users can choose to buy different sizes of sneakers.



Sneakers 1

\$499.0

4

5

6

7

8

9

10

11

MVF 4: Users are able to upload their dress up photo for sneakers.



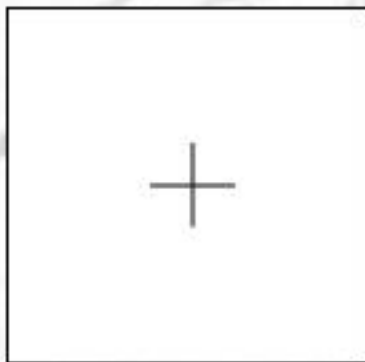
Dress Up



POST



Dress Up



UPLOAD

MVF 5: Users can login

X

Login

User
name:

Passwor
d:

Login

Registration

X

Login

User
name:

Password:

Login

Registration

Extended Viable Features

Feature 1: Users can search for the sneakers they want

Description: When users want to search for the sneakers they want, they can click the search button in the navigation bar, and then enter the name of the shoes, so that they can quickly find the sneakers they want

User Story: As a user, I want to search a pair of sneakers, so I can find the shoes I want quickly

Mock-ups:

Search...



sneakers 1



results:



sneakers 1
\$499.0



Feature 2: Users can put their selected sneakers into a shopping cart

Description: After the user selects a pair of shoes, if they don't want to buy them right away, they can put the sneakers in the cart until they want to buy them, and they can also remove the sneakers from the cart

User Story: As a user, I want to put some sneakers into a shopping cart, so that I do not have to look for them again when I need to buy them

Mock-ups:

Feature 3: Sneakers can be sorted by price

Description: There is a sort button in the upper left corner of the list of sneakers. Users can reorder the sneakers by price, so that they can find the right shoes, and they can also sort the sneakers after they have selected the type of sneakers.

User Story: As a user, I want to sort the sneakers by price, so that I can find sneakers at the right price more quickly.

Mock-ups:

Scope Creep

During this project, we changed the scope of the project more than once, and due to the backlog caused by time management errors, we reduced the number of Minimal Viable Features from 6 to 5. Also, in the context of the project, we changed our Features, especially Extended Features, more than once. For example, we originally planned that the app could detect users' unnecessary behaviors (such as hatred speech or racism) and rating system, but the technical knowledge we learned now could not support us to complete these features. Finally, after the group meeting, we had to cancel the plan of these functions and replace it with shopping cart system and price sorting.

Windfall

We found that using Invision app can greatly increase the speed of development. After our team get some new ideas, we can update the interface immediately.

Progress

We split the overall project to complete our own parts as planned. Although this does not allow everyone's contribution to be completely equal, the project was completed before the due date. During Assignment part 2, we made corresponding adjustments based on the project progress at that time. Our time management is as follows:

Testing

When our team completed the first part of the project, we invited customers from the target group to do usability testing. At the same time, ask if you are satisfied with the layout and function we designed. This direct test allows us to communicate efficiently with customers. From this test, we have collected a lot of customer opinions, which made our goal of the program development process more clear. At present, we have completed the development of the project. If there is extra time in the future, we will do more user testing to ensure that our project is a product that meets the expectations of most users.

Tools and Technologies

Github:

We will use GitHub to build draft website for this project. GitHub is a web tool that provides hosting for software development and version control using Git. The reason we use GitHub is we are familiar to use this tool after finish Intro to IT course. GitHub is also a free tool to store our code for our project. The reason why we don't use another web design tool like Wix (<https://www.wix.com/professionalwebsite/leader-topten>) is we have no experience to use this tool before, it could cause some unexpected mistakes when we create our website.

Github: <https://github.com/s3704446/ATM-IT>

Invision:

Invision is used to design the user interface of the app and to animate the page. We use this tool so that we can carry out interaction design, which also shows the interface of our final product.

Invision: <https://projects.invisionapp.com/share/3SYP4FI2J4W#/screens>

Trello:

The kanban board clearly marks the responsible member of each task, and you can view the tasks currently in progress and deadlines at any time.

Trello: <https://trello.com/b/RN5Nqt8Z/building-it-system>

AWS:

We use AWS to build the project website, which not only shows our team members, but also includes the project plan, project description and project justification.

AWS:

<https://s3.console.aws.amazon.com/s3/buckets/atm-sneakers/?region=us-east-1&tab=overview>

MS Teams:

Our team can communicate through MS Teams and process the same document at the same time to ensure everyone have the same project progress.

MS

Teams: <https://teams.microsoft.com/?tenantId=d1323671-cdbe-4417-b4d4-bdb24b51316b#/school/tab::7ba2b91d-b79f-4ff5-a907-85b42665c720/General?groupId=caa461f4-e382-4703-8007-4561845e6dd6&threadId=19:5e4774f450514361a35306c38c1702be@thread.tacv2&ctx=channel>

Figma:

Through this browser-based collaborative UI design tool, the efficiency of our UI designers has been greatly improved.

Proficiency of each member:

	Yuliang Lei	Qiheng Chen	Zixun Zhou	Zhentao Ma	Haoming	Deyang
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					Tian	Bao
Github	3	3	2	2	2	2
Invision	3	3	2	2	2	2
Trello	2	2	3	2	2	3
AWS	3	3	2	2	2	2
MS Teams	2	2	2	3	3	2
Figma	3	3	2	2	2	2

Challenges and learning

What we found easy

We found it easy to communicate with each other because we had been good friends since before this course. In team work, we are able to maintain good communication, discuss problems in the project, and help solve others' problems. Get better team work.

We found that it was easy for us to build a web page, because we had the foundation and experience of web design before, so it was easy for us to design a web page.

What we found difficult

We found that the whole project design and planning is difficult for us, because we have not done the project experience, at the beginning of the project, some do not know how to start, everyone has their own ideas and planning, integration of everyone's ideas and planning is difficult, so we need to keep good cooperation and it consumes us a lot of time and energy to study.

We used Github to design the website before, but this time we needed to build the website on AWS. We had no experience in using AWS before, which was a challenge for us. We had to learn everything from scratch.

Application design is a challenge for us. We are better at web design. For application design, we don't have a lot of experience. During the project, we spend a lot of time to learn. Fortunately We are good at the report part and saved a lot of time.

What we expected

We expect that all the functions in the plan may encounter problems, especially the application design, because we have no experience in designing applications, so we spent a lot of time learning and testing during the project.

What we did not expect

We didn't expect web design to be a challenge for us, because we used GitHub to design web pages. For AWS, everyone used it for the first time and lacked experience, so that we spent the first job. A lot of time to learn AWS.

Another challenge is that some members of our team are not in Melbourne due to the impact of the epidemic. The time difference and VPN caused some impact on our communication and caused some work delays.

New skills and experience that we have learned

Through this project, we learned a lot of new knowledge and skills, such as how to better communicate with teammates in team work, how to better conduct team work, and also learned many skills. Through this project, we can improve I am good at web design, and I am gradually familiar with the java part I am not good at.

Things have not worked out for us

We plan to design and build a prototype that is truly fully usable by the customer, but due to time and resource constraints and unexpected challenges, we cannot fully implement the plan. We have implemented the rough design and testing. However, we cannot connect the mobile client to the back-end service to complete a complete end-to-end working prototype. So we only designed a prototype, and did not really complete the program.

Plan changes / What we would have changed to the plan

If we are aware of these challenges, as well as our limited time and resources, as well as the ongoing problems of the project, then we will modify the scope of the project appropriately. We will turn the program into a web application. Because we are more

familiar with the design of web applications, this will save us a lot of time, and the time saved can be better used for application design and development. When the web application development is completed, when time permits, we will extend it to the mobile client to realize the development of the entire project.

Was our timetable realistic

When the project is completed, look at our timetable. Many parts of our timetable are unrealistic, because we did not take into account the problem of time difference, which caused some work delays, and we spent a lot of time on studying and reducing Time for our development. And there were too many plans at the beginning of the project to be fully realized in the end.

Have the tools and technologies worked out as expected

At the beginning of the project, we expected the tools and technologies to be used, using invision to design the user interface, and using php to design the website. We have used these tools very well, but in the process, our technology gradually began to fail. Cope with the development of the project, so we spent a lot of time in the process of the project to learn new technologies. But we still couldn't implement the entire program exactly as planned. We only completed the prototype of the entire program, and couldn't really do it like an app on the market. For us, the issue of jet lag is unexpected. When we started to plan our time, we did not consider the impact of jet lag, which caused some difficulties for us.

Project Processes

Project processed

What have you learned about group projects? What has worked well in your group? What has not worked well?

Working as a group for the last 12 weeks, some of the things that we have learned about group projects are:

Organization: In each group meeting everyone is very active organization and participation.

We all helped each other out in difficult problems.

Team communication: Each person's opinion is particularly important in the discussion of the group. We actively discuss and solve problems no matter in class or after class. The group members can give each other better Suggestions

Time management: We attach great importance to the time management of assignments. We put the things to Trello that should be done every week carefully so that it is very clear.

The communication between everyone in our group is efficient. Everyone can come up with good ideas. Everyone can point out a problem or fix a deficiency. The communication and reply after class are also very quick.

For the time management problems our team faces. In this way, we can pay attention to the assignments every week. We can not only ensure the quality of the assignments, but also correct the assignments in time so that you will not do badly because you do not have enough time.

What were the group's processes for communication? How were they? Have there been any changes since the start of the semester?

Our group communicated with each other through WeChat, and all the members reminded us of the information, so we all replied very quickly. We start every week with a discussion in WeChat. We also tried to use Trello for discussion, but found it convenient to use WeChat because Trello doesn't allow too much text for discussion.

Future Development