Android Project: Byblos Mobile Application
SEG 2105
Fall 2021

Professor:
Professor. Garzon

Due Date:
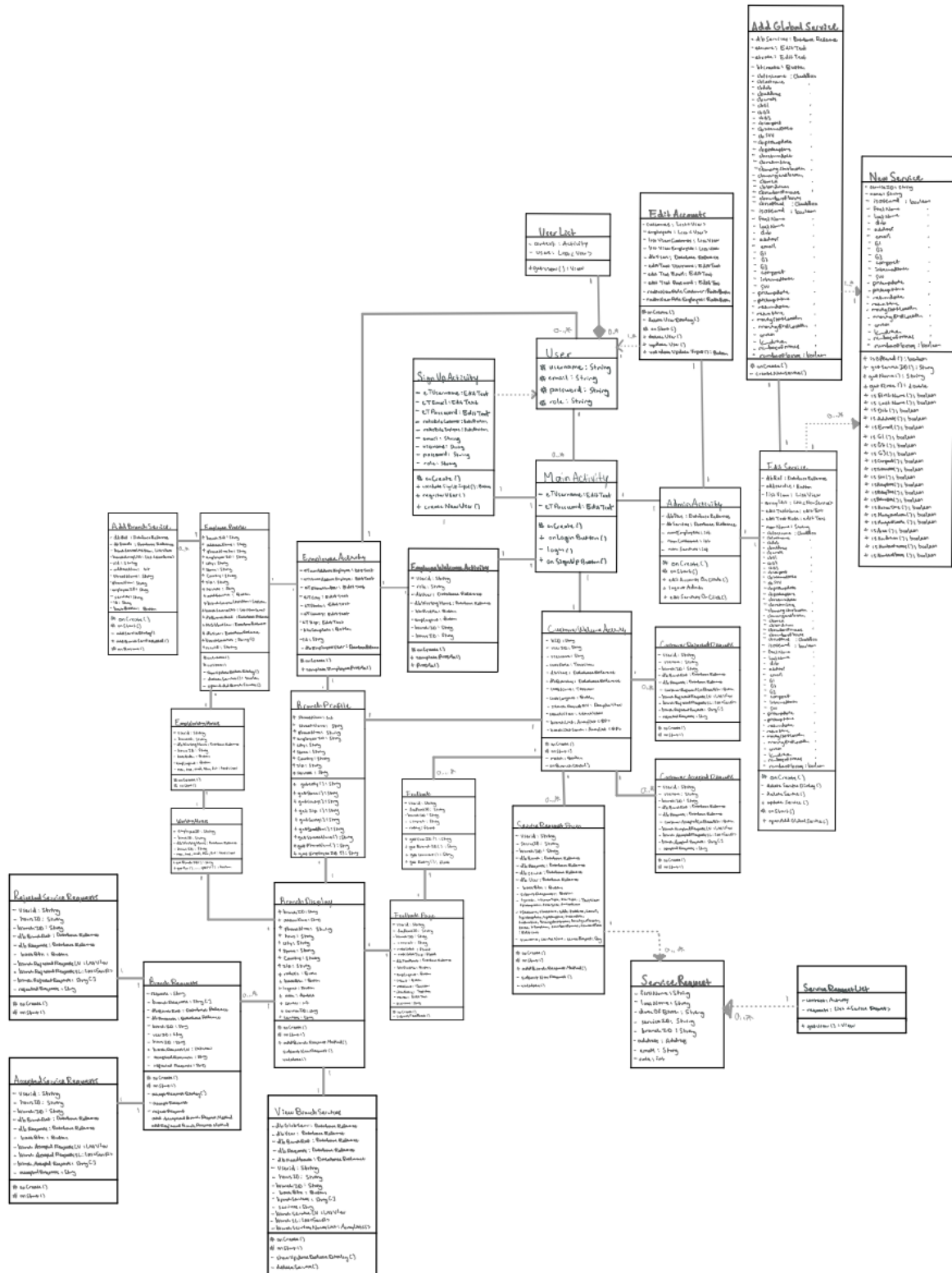December 8th, 2021

Group members:
Elayna Tian 300001926
Yasser Attaie 300026322
Caitlin Lim 300063055

Introduction

Throughout the duration of this past school semester, we were tasked with implementing an Android application that exhibits basic functionalities of services offered by an imaginary company called Byblos. The aforementioned services include car rental, truck rental, boat rental, bike rental, and moving assistance. Three types of users were created, including the administrator, customer, and branch employee. As such, each role is characterized by differing features; for example, admins are capable of creating, updating, and deleting services, in addition to deleting branch/employee and customer accounts. Employees are able to select services from the set of all available services, enter the working hours, and accept or reject submitted service requests from customers. Furthermore, customers can search for a branch via three methods (address, services, working hours), select a service, view working hours, and submit a service request form. All of these functions require basic software design planning and programming in order to implement. Ultimately, all group members collaborated to produce a successful application, whilst applying theoretical knowledge learned in the classroom and developing practical software engineering skills.

UML

Contributions

Feature/Task	Contributors
Deliverable 1	
Github: Repository created in Github contains all members of the group	Yasser Elayna Caitlin
Github: Each member of the group has made at least ONE commit to the repository.	Yasser Elayna Caitlin
UML Class diagram of your domain model	Elayna Caitlin
APK submitted	Elayna Caitlin
Can create a Byblos branch employee account	Yasser Debug: Caitlin and Elayna
Can create a customer account	Yasser Debug: Caitlin and Elayna
Can see the 'Welcome screen' after successful authentication. Can see the user role Can see the name or username associated to the account	Yasser Debug: Caitlin and Elayna
Fields are validated in all screens (e.g. you can't enter an invalid email, name, etc) (-1 for each field in which the user input is not validated)	Yasser Debug: Caitlin and Elayna
OPTIONAL - Group uses a DB (e.g. Firebase or SQLITE, or other similar technology)	Yasser Elayna Caitlin
Deliverable 2	
Updated UML Class diagram of your domain model	Elayna
APK submitted and ALL features working	Caitlin

(see notes below)	
At least 3 services (check page 2) that can be offered by Byblos branches using the application implemented. A service has a name and list of required information (check page 2)	Yasser Caitlin Elayna
Can remove services that are no longer being offered by the Byblos company	Yasser Caitlin Elayna
Can edit services	Yasser Caitlin Elayna
Can edit and delete accounts	Yasser
All fields are validated. For instance, you should not be able to create a service with no name. This should be implemented along with valid error messages. (-1 for each field in which the user input is not validated)	Yasser
Deliverable 3	
Updated UML Class diagram of your domain model	Elayna
APK submitted	Caitlin
Can complete the profile information. - Enter address (mandatory field) - Enter phone number (mandatory field) You can include any other fields your find necessary. The two fields above need to be included. 'Mandatory field' means that the user must specify a value	Caitlin Elayna
Can add services to their profile (From the list of services added by the admin, the branch employee can select one or more services.)	Caitlin Elayna
Can delete services from their profile when they are no longer being offered	Yasser
Can specify working hours. You are free to implement this feature as you want. That is, with a calendar or by selecting predefined	Yasser

timeslots, by week, by day, etc. Usability is key for this feature!	
Can approve or reject service requests submitted to the branch	Elayna Caitlin
All fields are validated. For instance, you should not be able to enter an invalid phone number or address. This should be implemented along with valid error messages. (-1 for each field in which the user input is not validated)	Caitlin
Deliverable 4	
Updated UML Class diagram of your domain model	Elayna
APK submitted	Caitlin
Final report including: - A title page (2.5 points) - Short Introduction (2.5 points) - Update UML class diagram - Table with the roles in the team and contributions of team members for each deliverable. (10 points) - All the screenshots of your app. (10 points) - Lessons learned (5 points)	Caitlin
10 Unit test cases (simple local tests). No need to include instrumentation or Espresso Tests (UI). Test cases must be relevant to the features of deliverable 4	Yasser
Can search for a Byblos branch by: - address - working hours - type of services provided	Yasser
Fill in the required information and documents and submit the service request	Caitlin Elayna
Can rate a branch by providing a comment and a rating from 1 to 5	Caitlin
All fields are validated. (-1 for each field in which the user input is not validated	Elayna Caitlin

Screenshots

Log in to Byblos!

Please enter your Username or Email

Username

Please enter your password

Password

LOG IN!

NOT A MEMBER? CLICK HERE TO SIGN UP!

Main login page

WELCOME ADMIN

Number of Employees: 7

Number of Customers: 3

Number of Services: 5

EDIT ACCOUNTS

EDIT SERVICES

ADMIN LOGOUT

Admin welcome page

EDIT OR DELETE ACCOUNT

BACK

CUSTOMERS	EMPLOYEES
custtest	emptest
custtest@test.com	emptest@test.com
custtest1	emptest1
cust@test.com	emp@e.com
democust	emptest2
democust@gmail.com	e2@e.com
	emptest3
	e3@e.com
	emptest4
	e4@e.com
	emptest5
	e5@e.com
	emptest6

Click on edit accounts button

EDIT OR DELETE ACCOUNT

BACK

custtest

Enter New Username

Enter New Email

Enter New password

○ Customer   ○ Employee

UPDATE   DELETE

e3@e.com
emptest4
e4@e.com
emptest5
e5@e.com
emptest6

Long clicking on an account

SERVICES

BACK

ADD SERVICE

Truck Rental
50.0
Car Rental
30.0
Bike Rental
10.0
Boat Rental
100.0
Moving Assistance
40.0

Click on edit services button

ADD NEW SERVICE

New service name

Hourly Rate

General Customer Info

☐ First Name

☐ Last Name

☐ Date of Birth

☐ Address

☐ Email

License Type

☐ G1

CREATE

Add services button

Truck Rental

Truck Rental

50.0

General Customer Info

- ☑ First Name
- ☑ Last Name
- ☑ Date of Birth
- ☑ Address
- ☑ Email

License Type

UPDATE

DELETE

Long clicking on a service to edit

Create an account!

Username

Email

Password

○ Customer

○ Employee

REGISTER!

Creating customer or branch account

Welcome, demobranch!

Your role is Employee

PROFILE INFORMATION

LOGOUT

Welcome page for branch employee

Complete Profile Information

Address information:

House/Unit Number

Street Name

City

State/Province/Region

ZIP/Postal Code

Country

Phone information:

Phone Number:

Complete the branch profile information

Complete Profile Information

Phone information:

Phone Number:

Working Hours:

- ☐ Monday 9am-5pm
- ☐ Tuesday 9am-5pm
- ☐ Wednesday 9am-5pm
- ☐ Thursday 9am-5pm
- ☐ Friday 9am-5pm

SUBMIT

Complete the branch profile information

Profile

No ratings

WORKING HOURS

Address: 12 DemoBranch St, Ottawa, Ontario, Canada, K2H3J2

Phone number: 6138923892

VIEW SERVICES

ADD SERVICES

VIEW SERVICE REQUESTS

Branch profile display for employee

Profile

No ratings

WORKING HOURS

Address: 12 DemoBranch St, Ottawa, Ontario, Canada, K2H3J2

Phone number: 6138923892

VIEW ACCEPTED REQUESTS

VIEW REJECTED REQUESTS

LOGOUT

Branch profile display for employee

WORKING HOURS

BACK

EDIT HOURS

Monday: 9am - 5pm
Tuesday: 9am - 5pm
Wednesday: 9am - 5pm
Thursday: 9am - 5pm
Friday: Closed

View working hours

Edit Working Hours

BACK

☑ Monday 9am-5pm

☑ Tuesday 9am-5pm

☑ Wednesday 9am-5pm

☑ Thursday 9am-5pm

☐ Friday 9am-5pm

UPDATE

Edit working hours

SERVICES TO ADD

Truck Rental
50.0
Car Rental
30.0
Bike Rental
10.0
Boat Rental
100.0
Moving Assistance
40.0

BACK TO PROFILE

Click on add services button

Truck Rental

ADD TO BRANCH SERVICES

Tru
50.
Ca
30.
Bik
10.
Bo
100
Mc
40.

Long click on service

SERVICES OFFERED

BACK

Truck Rental
50.0
Car Rental
30.0
Bike Rental
10.0

Click on view services button

SERVICES OFFERED

BACK

Truck Rental
50.0
Car Rental
30.0
Bike
10.0

Delete Truck Rental service?

DELETE

Long click on service to delete

Welcome, democust!

Your Role is: Customer

SEARCH FOR A BRANCH

🔍

LOGOUT

Welcome page for customer

Welcome, democust!

SEARCH FOR A BRANCH

d   ✕

Address: 1, street, city, state, country, k1z8j5
Phone Number: 123123123
Services: Bike Rental, Moving Assistance

Address: 1, street, city, state, country, k1a2k3
Phone Number: 123123123
Services: Boat Rental, Moving Assistance

Address: 1, f, f, f, fd, k2s2k3
Phone Number: 123123123
Services:

Address: 1, f, f, d, fds, fdsadf
Phone Number: 123123123
Services:

Address: 1, fds, fds, dfs, ewq, qweqwe
Phone Number: 123123123
Services:

Address: 1, f, f, f, fds, fdsafd

Customer search bar

Byblos Branch

BACK

LOGOUT

No ratings

RATE US

Your rating:

Address: 12 DemoBranch St, Ottawa,
Ontario, Canada, K2H3J2

Phone number: 6138923892

Working hours:

Branch display for customer

Byblos Branch

BACK

LOGOUT

Working hours:
Monday: 9:00 AM - 5:00PM
Tuesday: 9:00 AM - 5:00PM
Wednesday: 9:00 AM - 5:00PM
Thursday: 9:00 AM - 5:00PM

Closed all other days

VIEW ACCEPTED SERVICE REQUESTS

VIEW REJECTED SERVICE REQUESTS

Services Offered:

Branch display for customer

Byblos Branch

BACK

LOGOUT

Services Offered:

Truck Rental
50.0
Car Rental
30.0
Bike Rental
10.0

Branch display for customer

Long click on service

BACK

SEND SERVICE REQUEST TO BRANCH

Se

Tru
50.
Ca
30.
Bik
10.

Long click on service

Service Request Form

BACK

General Customer Info

Enter first name

Enter last name

Enter date of birth dd/mm/yyyy

Enter address

Enter email

License Type

○ G1

○ G2

○ G3

SUBMIT REQUEST

Service request form when clicking on send service button

Byblos

RATE US

★ ★ ★ ★ ★

Leave a comment

SUBMIT

BACK

Clicking on rate us button

Byblos Branch

BACK

LOGOUT

Average rating: 3.5

RATE US

Your rating:
3.5
Great!

Address: 12 DemoBranch St, Ottawa, Ontario, Canada, K2H3J2

Phone number: 6138923892

Working hours:

Updated

SERVICE REQUESTS

BACK

democust
Truck Rental
democust
Car Rental

Branch employee viewing service requests

Accept or rejectTruck Rental service request?

Customer Name: Demo Cust
Date of Birth: 01/02/2000
Address: 12 DemoCust St
Email: democust@gmail.com
License: G2
Pickup Date: 9090
Pickup Time: 1:00pm
Return Date: 9090
Return Time: 2:00pm
Area: Canada
KM Driven: 898

ACCEPT

REJECT

de
Tru
de
Car

Long click on service request

ACCEPTED REQUESTS

BACK

democust
Truck Rental

Accepted service requests display for branch

REJECTED REQUESTS

BACK

democust
Car Rental

Rejected service requests display for branch

SERVICE REQUESTS

BACK

democust
Truck Rental

Accepted service requests display for customer

REJECTED SERVICE REQUESTS

BACK

democust
Car Rental

Rejected service requests display for customer

Lessons Learned

The process of implementing the features of this Android application has allowed all group members to develop and refine skill sets in areas such as design specification, production of UML diagrams, programming using Android Studio, and utilization of GitHub repositories. A project of this magnitude requires critical-thinking and problem-solving skills, exhibited by each team member, in order to debug the code and understand why the app crashes or does not function as intended. Furthermore, all team members demonstrated collaboration, and in doing so, developed management and team-relation skills. Due to the fact that many features of this application were not reviewed in class, initiative and a positive disposition for learning were assets that allowed team members to conduct additional research on the Internet to learn how to implement them. Since this project required the use of a database, all team members researched and learned how to push information to and access information from Firebase Realtime Database. Furthermore, all team members applied the fundamentals of object-oriented programming to create an elegant and efficient application in Android Studio. For example, we required inheritance and polymorphism in order to create an effective adapter view for our search functionality. Moreover, as this project required the use of GitHub, all team members developed skills in utilizing common git commands, whilst refining collaboration when pushing code and pulling changes. In conclusion, it is strongly implied that all team members were able to learn, comprehend, and apply concepts relating to software engineering in this side project application.