# *Deliverable 4 Final Report*

# *SEG2105 - Introduction to Software Engineering*

***Fall 2018***
***School of Electrical Engineering and Computer Science***
***University of Ottawa***

***Course Coordinator: Dr. Miguel A. Garzón***

***Due Date: Dec 5th***

***Student 1: Xumou Zhang 8474153***
***Student 2: Mingwei Deng 7847379***
***Student 3: Dengyu Liang 300019847***
***Student 4:Yuxuan Jiang 8235509***
***Student 5: Jichao An 8300233***

Short Introduction:

In this project, we build a Service program for the service providers and home owners, also build administers as the regulars for the users. We use the firebase as the database to keep the data.

All 5 members were participated in parts of the project programming or report writing.

Lesson Learned:

In this project, we learned that:

1) Do not use firebase when we are unfamiliar with it, because we had a really bad time to debug the firebase parts.
2) When everyone is doing the work, it is important to separate the files that need to be accessed or to be changed because we are working with Github which is easy to create conflicts between two people's workloads.
3) It is also important for the group leader to not only separate the workloads to everyone, but also supervise and urge everyone to finish their works. A group will fail to finish the work before the deadline if a group leader fail to do that.
4) It is important to search on the professional website for solution which we faced.
5) Ask for help when the person cannot figure out the problem.

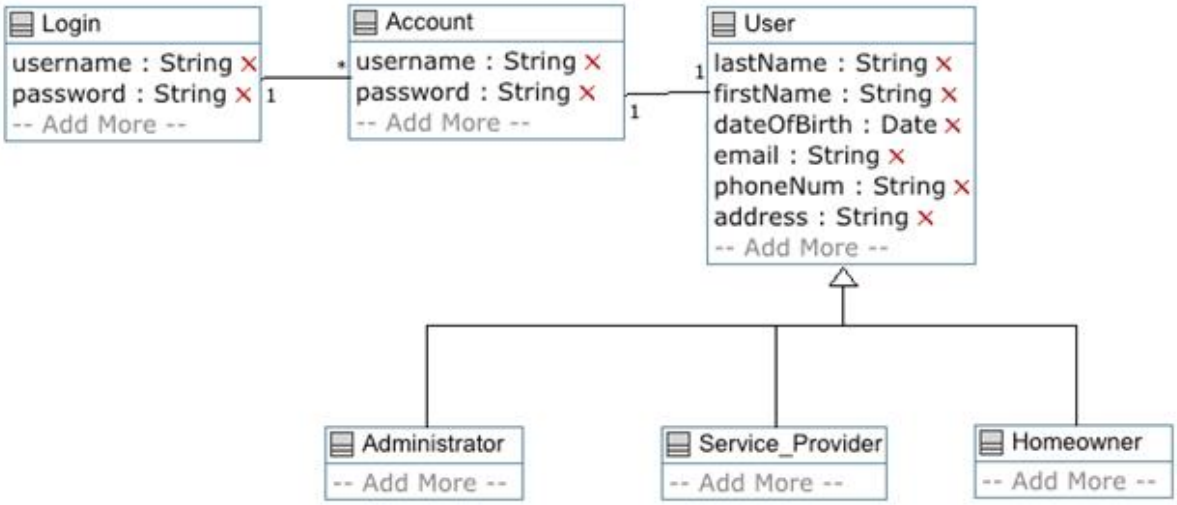
Table with the roles in the team and contributions of team members for each deliverable:

| | Deliverable 1 | Deliverable 2 | Deliverable 3 | Deliverable 4 | All members participated in writing java codes from d1 to d4. |
|---|---|---|---|---|---|
| ***Xumou*** | 22% | 20% | 21% | 17.5% | Responsible for all umls and final reports. |
| ***Mingwei*** | 22% | 20% | 24% | 20% | Responsible for all unit tests and circle ci |
| ***Dengyu*** | 22% | 23% | 22% | 22.5% | Responsible for most of Firebase. |
| ***Jichao*** | 12% | 12% | 12% | 20% | Responsible for parts in 1,2,3 and did more on p4 |
| ***Yuxuan*** | 22% | 25% | 21% | 20% | Responsible for all xmls |

UML Diagrams and UML codes for deliverable 1,2,3 and 4:

Deliverable 1 UMPLE Code:

```
class Login
{
  String username;
  String password;
}

class Account
{
  * -- 1 Login;
  String username;
  String password;

  1 -- 1 User;
}

class User
{
  String lastName;
  String firstName;
  Date dateOfBirth;

  String email;
  String phoneNum;
  String address;

}

class Administrator
{
  isA User;
}

class Service_Provider
{
  isA User;
}

class Homeowner
{
  isA User;
}
```


Login
username : String
password : String
-- Add More --
Account
username : String
password : String
-- Add More --
User
lastName : String
firstName : String
dateOfBirth : Date
email : String
phoneNum : String
address : String
-- Add More --
Administrator
-- Add More --
Service_Provider
-- Add More --
Homeowner
-- Add More --
1
*
1
1
1

Deliverable2:

The administrator can:

1. Create services (at least 10) to be offered: The list of services may include: Appliance install, carpet cleaning, moving, plumbing, appliance repair, Furniture assembly, Locksmith, painting, window cleaning, Electrical, Mould Remediation, Pest control, Junk Removal, Handyman services.
2. Specifies a rate per hour for the services created.

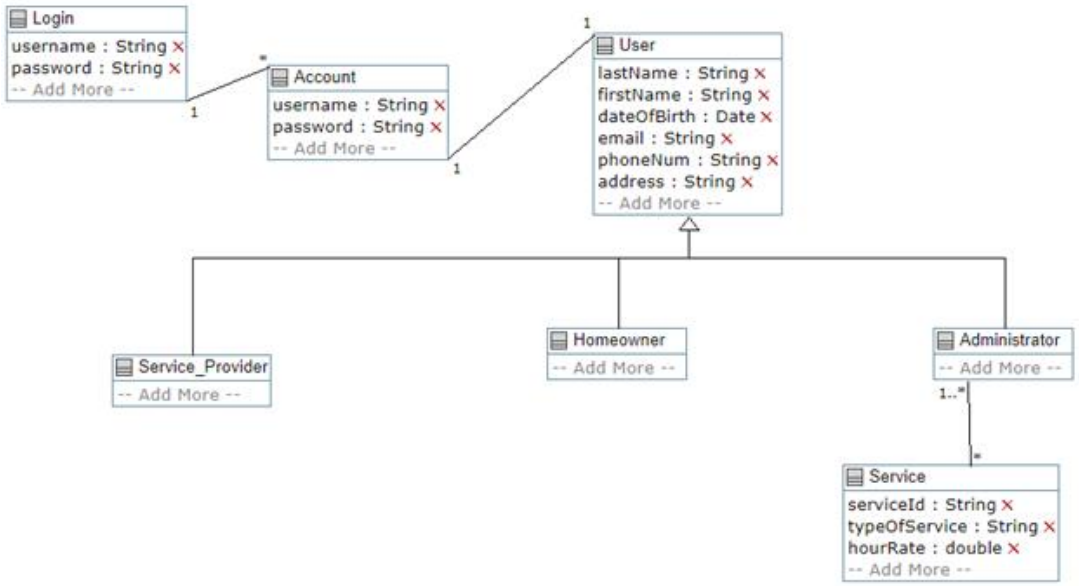
Code:

```
class Login
{
  String username;
  String password;
}

class Account
{
  * -- 1 Login;
  String username;
  String password;

  1 -- 1 User;
}

class User
{
  String lastName;
  String firstName;
  Date dateOfBirth;

  String email;
  String phoneNum;
  String address;

}

class Administrator
{
  isA User;
}

class Service_Provider
{
  isA User;
```

}

class Homeowner
{
 isA User;
}

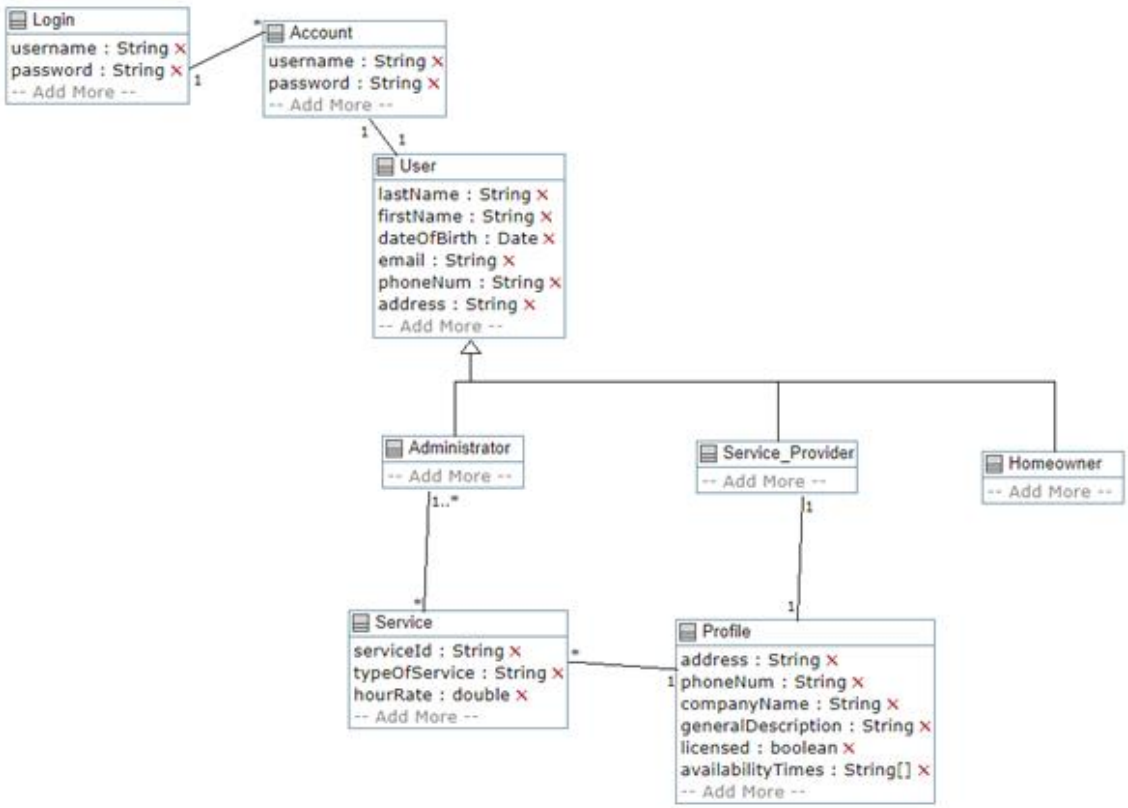
class Service
{
 String serviceId;
 String typeOfService;
 double hourRate;
 * -- 1..* Administrator;
}



D3:

```
class Login
{
  String username;
  String password;
}

class Account
{
  * -- 1 Login;
  String username;
  String password;

  1 -- 1 User;
}

class User
{
  String lastName;
  String firstName;
  Date dateOfBirth;

  String email;
  String phoneNum;
  String address;

}

class Administrator
{
  isA User;
}

class Service_Provider
{
  isA User;
}

class Homeowner
{
  isA User;
}

class Service
```

```
{
  String serviceId;
  String typeOfService;
  double hourRate;
  * -- 1..* Administrator;
}
class Profile
{
  String address;
  String phoneNum;
  String companyName;
  String generalDescription;
  boolean licensed;

  String[] availabilityTimes;
  1 -- 1 Service_Provider;
  1 -- * Service;
  }
```

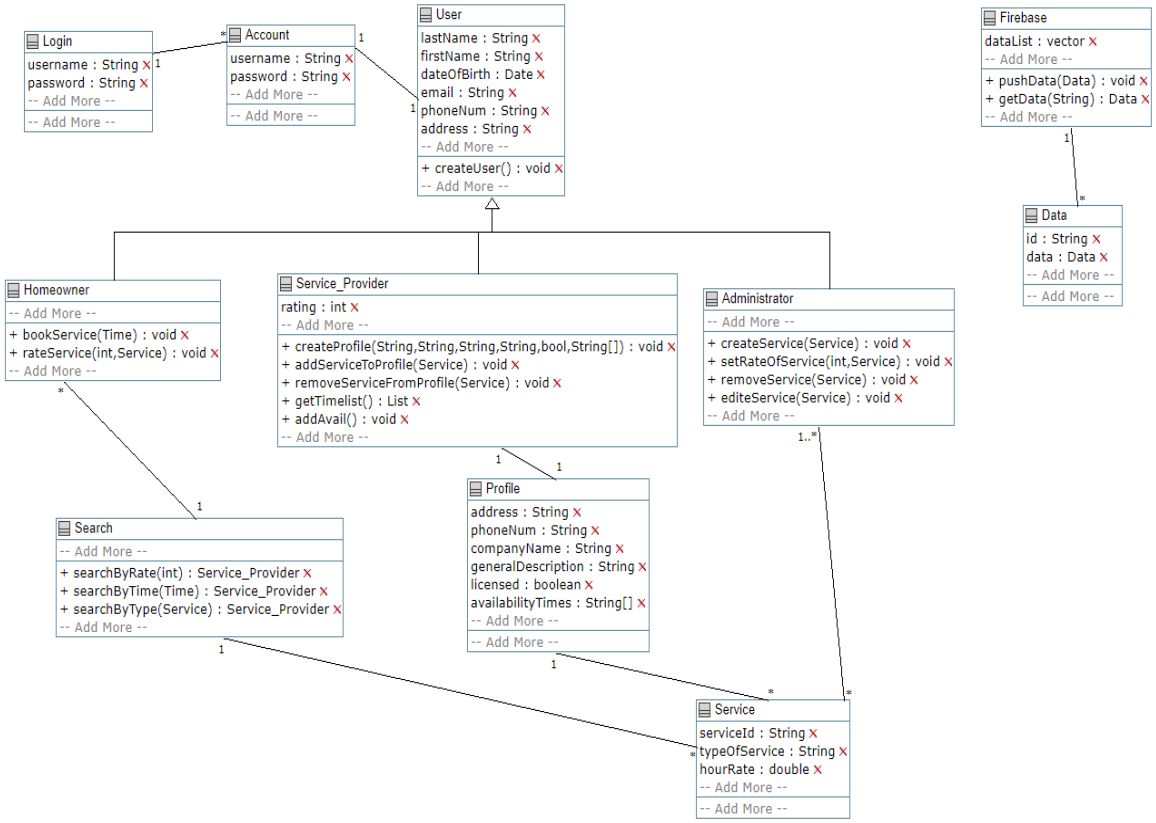


D4:

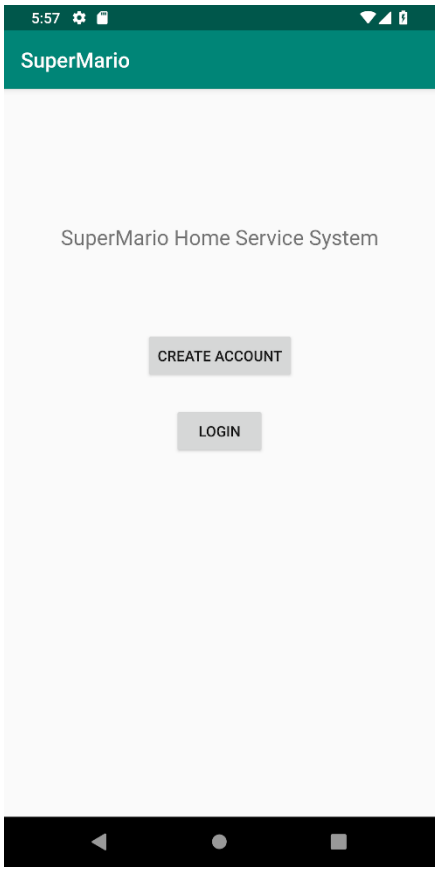
```
class Login
{
  String username;
  String password;
}

class Account
{
  * -- 1 Login;
  String username;
  String password;

  1 -- 1 User;
}

class User
{
  String lastName;
  String firstName;
  Date dateOfBirth;

  String email;
  String phoneNum;
  String address;
  createUser(){}

}
class Search{

  1 -- * Service;
 Service_Provider searchByRate(int rating)
  {
  }
   Service_Provider searchByTime(Time time)
  {
  }
   Service_Provider searchByType(Service service)
  {
  }

}
class Administrator
{
```

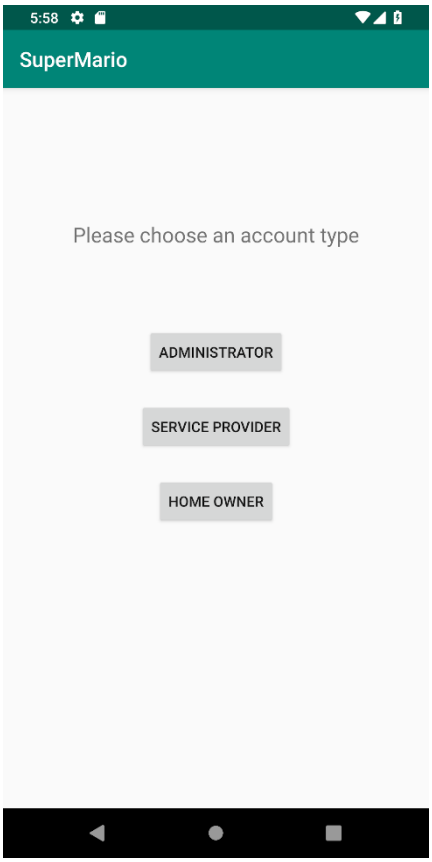
```
  isA User;
  void createService(Service service){}
  void setRateOfService(int rate,Service serivce){}
  removeService(Service service){}
  editeService(Service service){}
}

class Service_Provider
{
  isA User;
  int rating;
  void createProfile(String add,String phoneNum,String comNam, String genDes,bool
       lic,String[] availTimes){}
  addServiceToProfile(Service service){}
removeServiceFromProfile(Service service){}
List getTimelist(){}
void addAvail(){}
}

class Homeowner
{
  isA User;
  void bookService(Time time){}
  void rateService(int rating, Service service){}
  * -- 1 Search;
}

class Service
{
  String serviceId;
  String typeOfService;
  double hourRate;
  * -- 1..* Administrator;
}

class Data{
  String id;
  Data data;
  * -- 1 Firebase;
}

class Firebase{
  vector dataList;
  void pushData(Data data){}
```

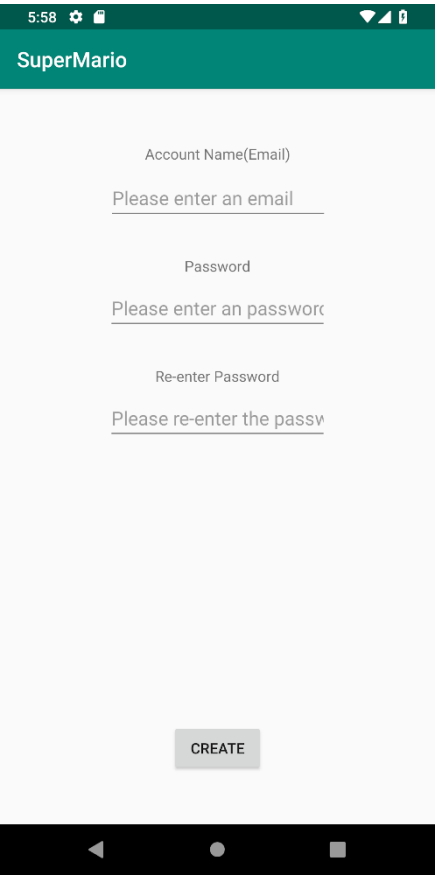
```
  Data getData(String id){}
}
class Profile
{
  String address;
  String phoneNum;
  String companyName;
  String generalDescription;
  boolean licensed;

  String[] availabilityTimes;
1 -- 1 Service_Provider;
  1 -- * Service;
  }
```

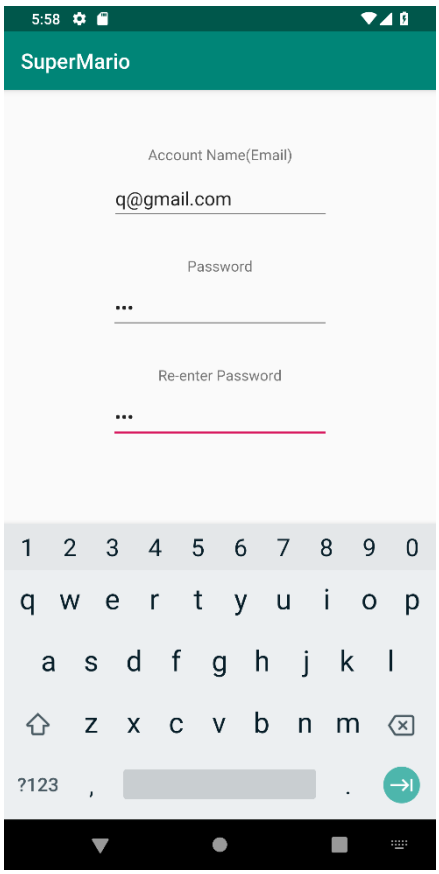


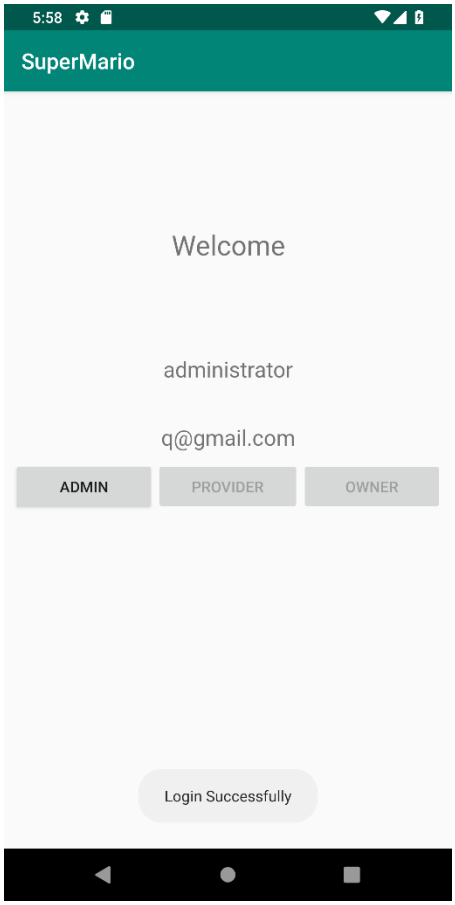
All the screenshots of our app: (Description in the end)

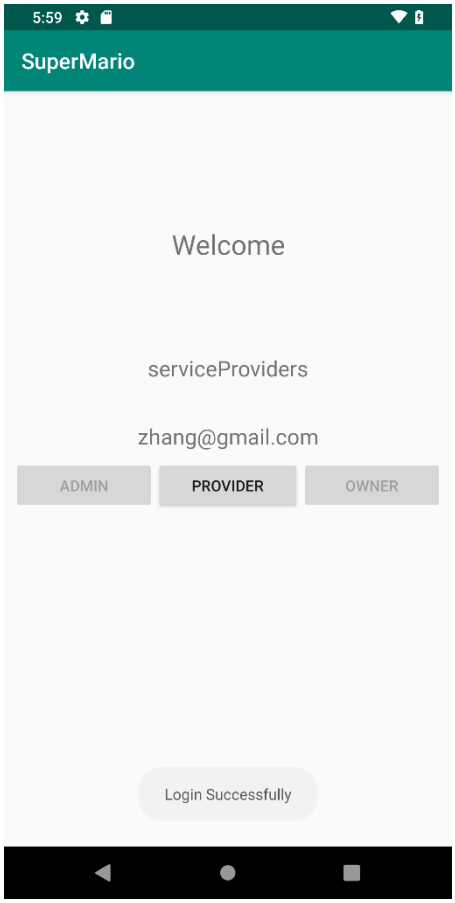


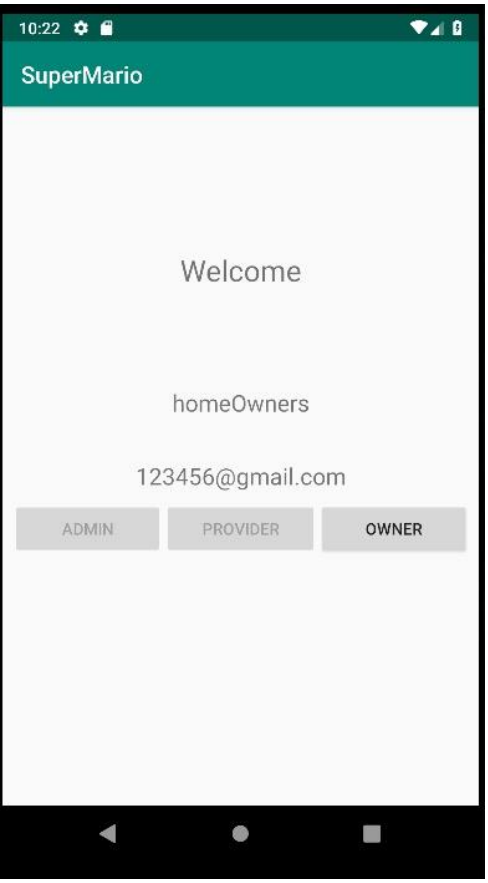



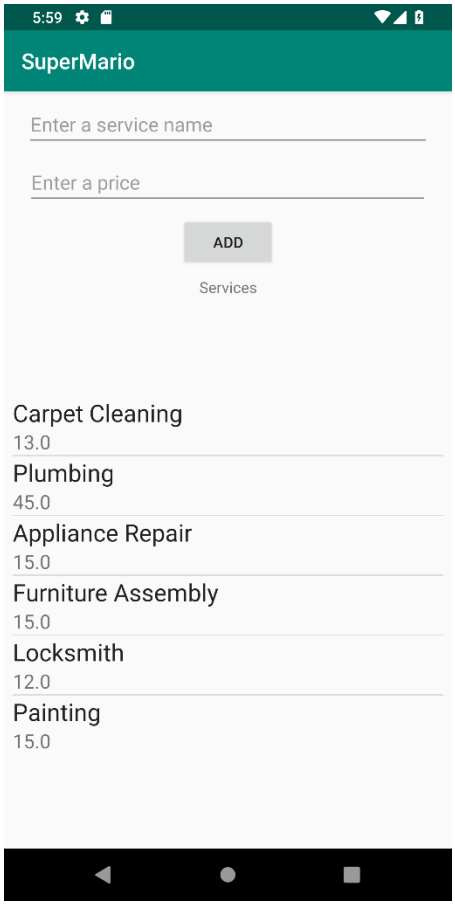



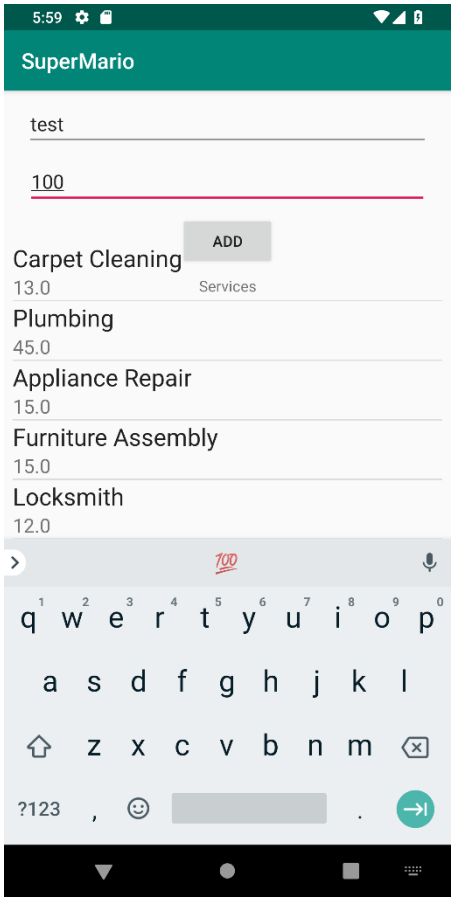



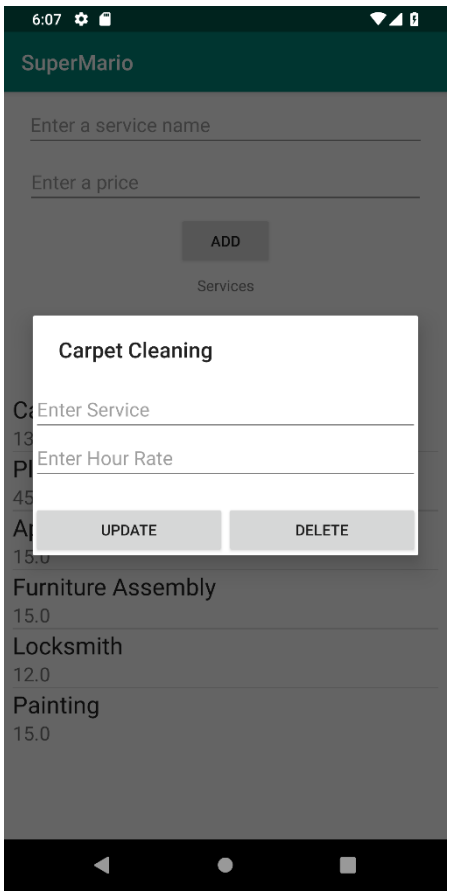

5:58
SuperMario
Welcome
administrator
q@gmail.com
ADMIN
PROVIDER
OWNER
Login Successfully

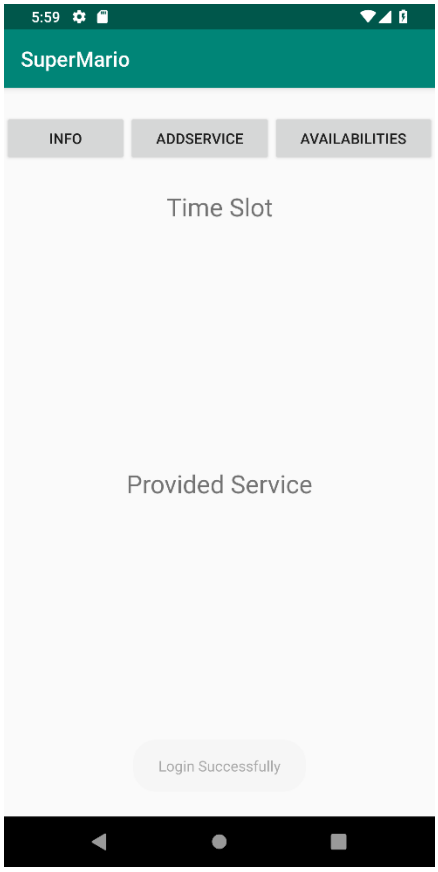

5:59
SuperMario
Welcome
serviceProviders
zhang@gmail.com
ADMIN
PROVIDER
OWNER
Login Successfully

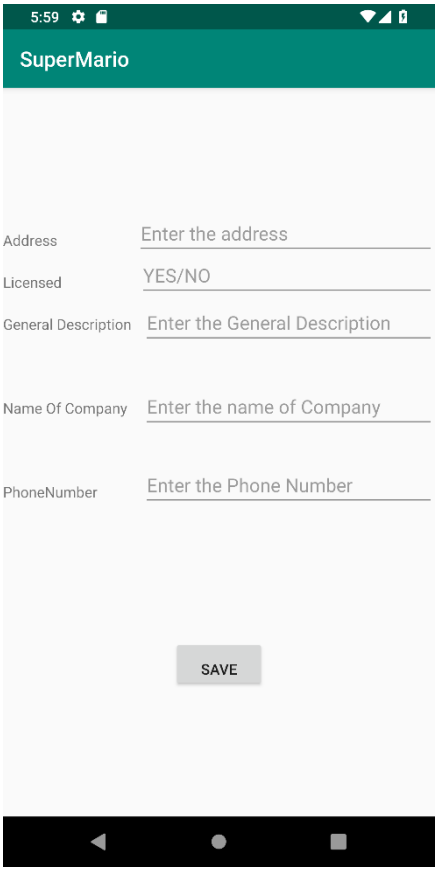

10:22
SuperMario
Welcome
homeOwners
123456@gmail.com
ADMIN
PROVIDER
OWNER

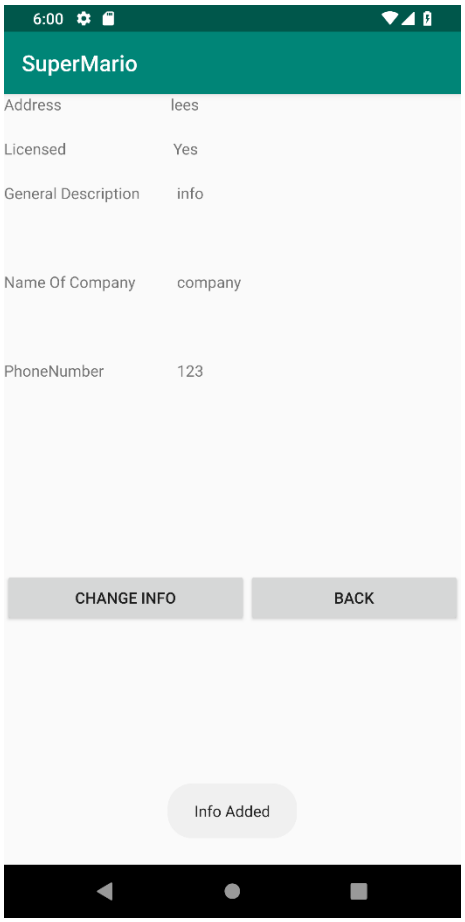

5:59
SuperMario
Enter a service name
Enter a price
ADD
Services
Carpet Cleaning
13.0
Plumbing
45.0
Appliance Repair
15.0
Furniture Assembly
15.0
Locksmith
12.0
Painting
15.0

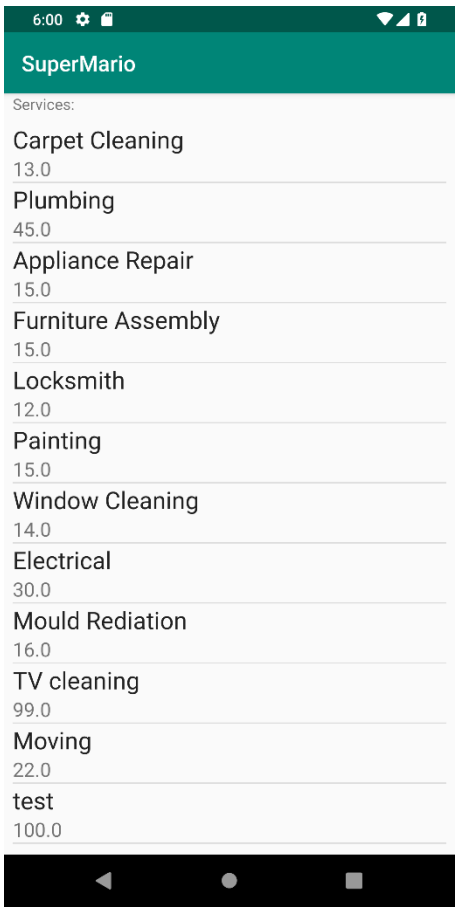

5:59
SuperMario
test
100
ADD
Carpet Cleaning
13.0
Services
Plumbing
45.0
Appliance Repair
15.0
Furniture Assembly
15.0
Locksmith
12.0

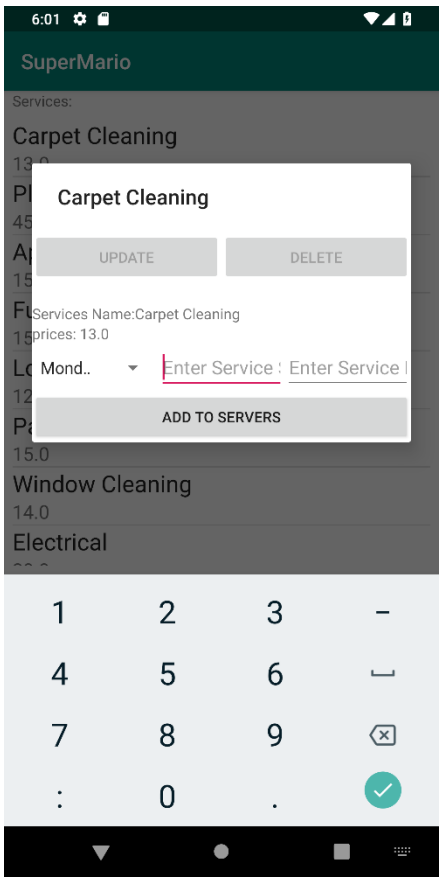

6:07
SuperMario
Enter a service name
Enter a price
ADD
Services
Carpet Cleaning
Enter Service
Enter Hour Rate
UPDATE
DELETE
Furniture Assembly
15.0
Locksmith
12.0
Painting
15.0

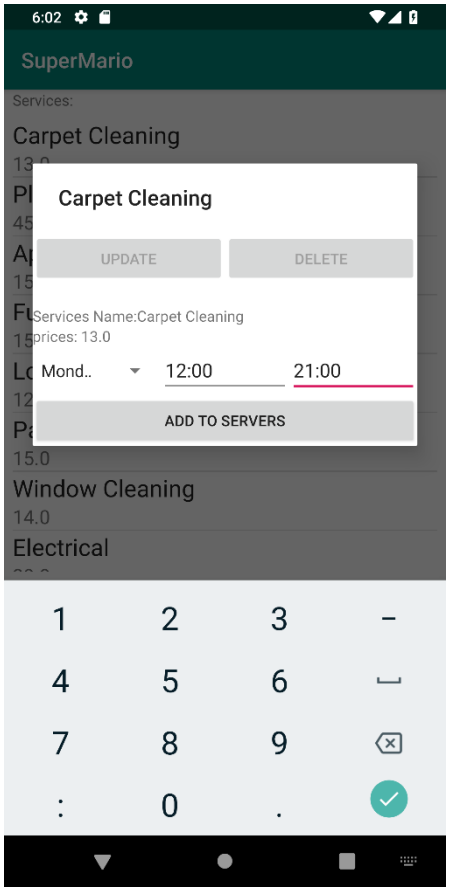

5:59
SuperMario
INFO
ADDSERVICE
AVAILABILITIES
Time Slot
Provided Service
Login Successfully

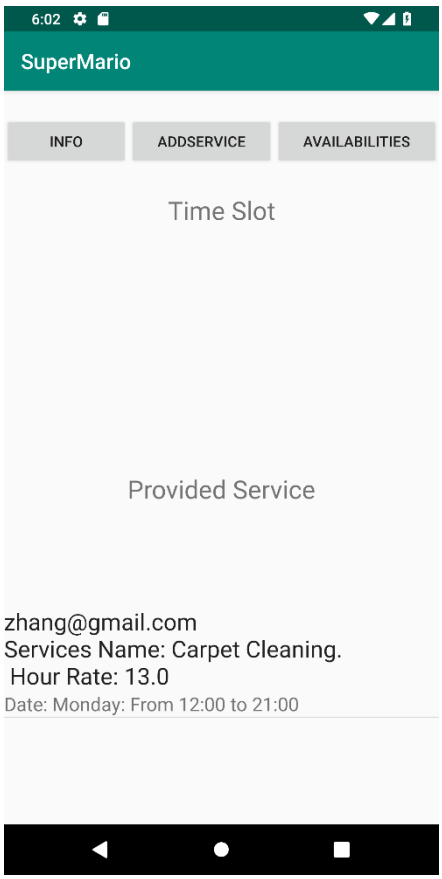

5:59
SuperMario
Address
Enter the address
Licensed
YES/NO
General Description
Enter the General Description
Name Of Company
Enter the name of Company
PhoneNumber
Enter the Phone Number
SAVE

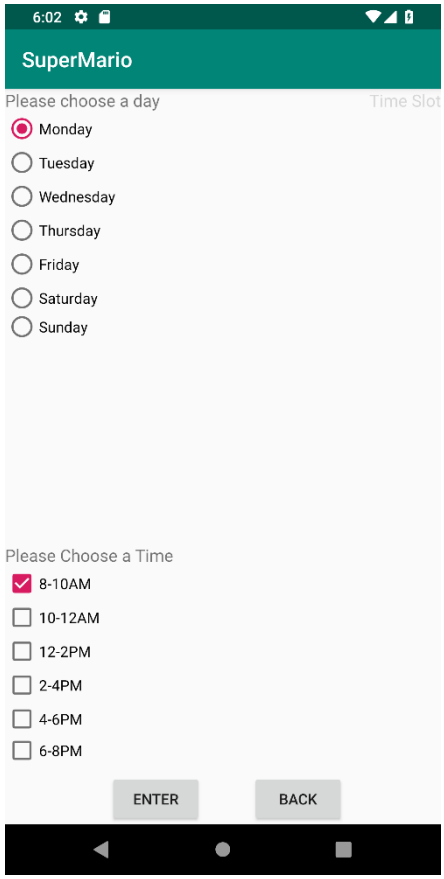

6:00
SuperMario
Address
lees
Licensed
Yes
General Description
info
Name Of Company
company
PhoneNumber
123
CHANGE INFO
BACK
Info Added

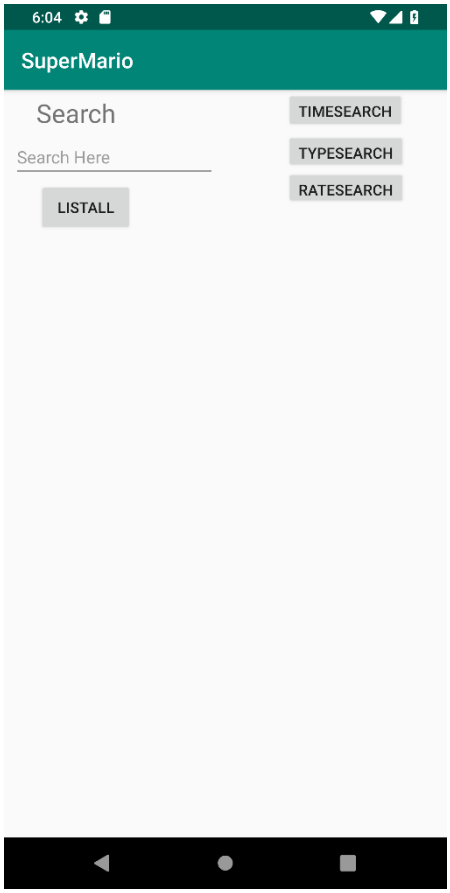

6:00
SuperMario
Services:
Carpet Cleaning
13.0
Plumbing
45.0
Appliance Repair
15.0
Furniture Assembly
15.0
Locksmith
12.0
Painting
15.0
Window Cleaning
14.0
Electrical
30.0
Mould Rediation
16.0
TV cleaning
99.0
Moving
22.0
test
100.0

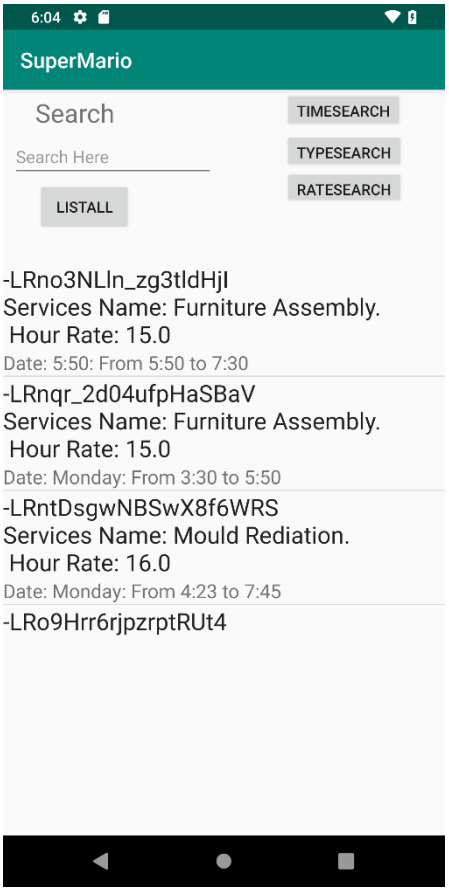

6:01
SuperMario
Services:
Carpet Cleaning
Carpet Cleaning
UPDATE
DELETE
Services Name:Carpet Cleaning
prices: 13.0
Mond..
Enter Service
Enter Service
ADD TO SERVERS
15.0
Window Cleaning
14.0
Electrical

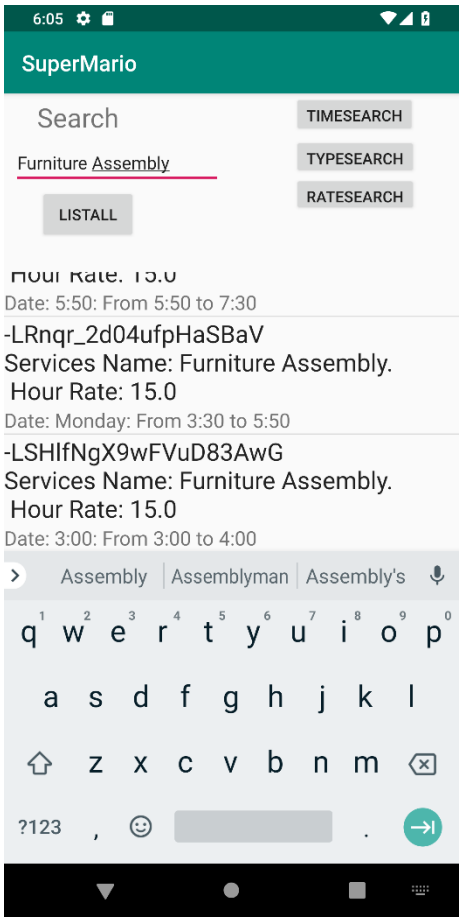

6:02
SuperMario
Services:
Carpet Cleaning
Carpet Cleaning
UPDATE
DELETE
Services Name:Carpet Cleaning
prices: 13.0
Mond..
12:00
21:00
ADD TO SERVERS
15.0
Window Cleaning
14.0
Electrical


6:02
SuperMario
INFO
ADDSERVICE
AVAILABILITIES
Time Slot
Provided Service
zhang@gmail.com
Services Name: Carpet Cleaning.
Hour Rate: 13.0
Date: Monday: From 12:00 to 21:00


6:02
SuperMario
Please choose a day
Time Slot
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
Please Choose a Time
8-10AM
10-12AM
12-2PM
2-4PM
4-6PM
6-8PM
ENTER
BACK


6:04
SuperMario
Search
TIMESEARCH
Search Here
TYPESEARCH
RATESEARCH
LISTALL


6:04
SuperMario
Search
TIMESEARCH
Search Here
TYPESEARCH
RATESEARCH
LISTALL
-LRno3NLln_zg3tldHjl
Services Name: Furniture Assembly.
Hour Rate: 15.0
Date: 5:50: From 5:50 to 7:30
-LRnqr_2d04ufpHaSBaV
Services Name: Furniture Assembly.
Hour Rate: 15.0
Date: Monday: From 3:30 to 5:50
-LRntDsgwNBSwX8f6WRS
Services Name: Mould Rediation.
Hour Rate: 16.0
Date: Monday: From 4:23 to 7:45
-LRo9Hrr6rjpzrptRUt4


6:05
SuperMario
Search
TIMESEARCH
Furniture Assembly
TYPESEARCH
RATESEARCH
LISTALL
Date: 5:50: From 5:50 to 7:30
-LRnqr_2d04ufpHaSBaV
Services Name: Furniture Assembly.
Hour Rate: 15.0
Date: Monday: From 3:30 to 5:50
-LSHlfNgX9wFVuD83AwG
Services Name: Furniture Assembly.
Hour Rate: 15.0
Date: 3:00: From 3:00 to 4:00
Assembly
Assemblyman
Assembly's

Description of Screenshots:
First page are 4 pics of login system.
Second page are the 3 types of users' welcome pages.
Third page are the functions of Admin.
Fourth and fifth page are the functions of Service Provider.
Last page are the functions of HomeOwner.