



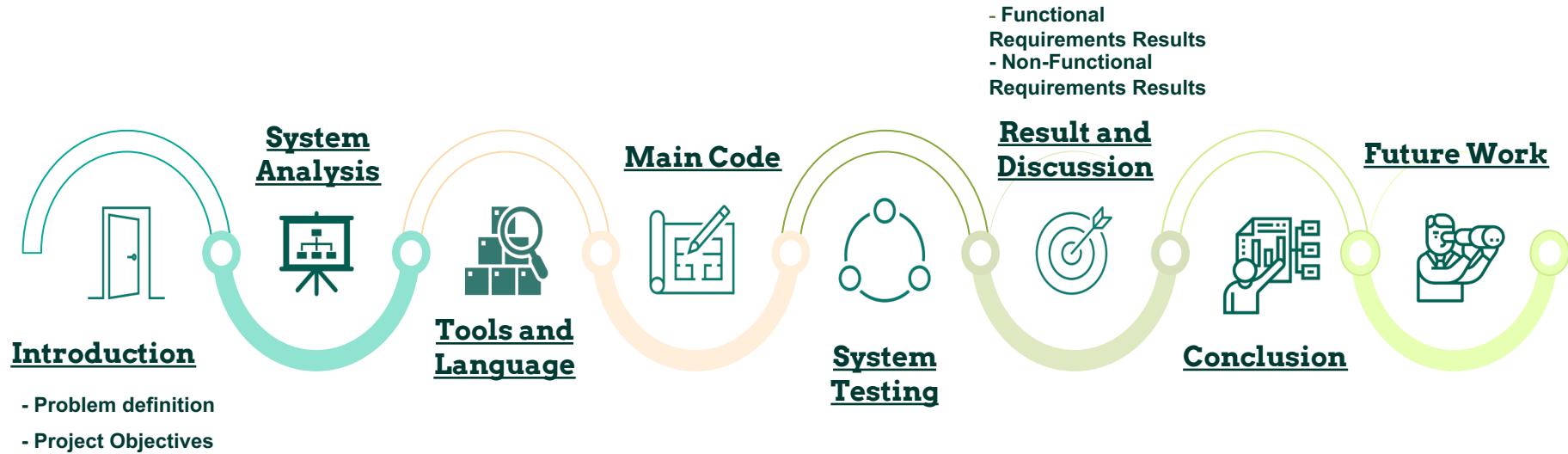
E-help Platform for Voluntary and Humanitarian Aid

Prepared by:
Raghad Akram





Table of Contents





Introduction



Our Religion

Volunteering is one of the sources of good as it is an important cultured and human behavior

Vision 2030

Problem Definition

- The organizations suffer from a lack of volunteers
- The lack of a platform to collect volunteer teams
- When an emergency happens, you need help from some people
 - Inability to find suitable places to volunteer in
 - The inability to ensure that the volunteer attended the volunteer opportunity



Project Objectives

The main objective of the E-help Platform for Voluntary and Humanitarian Aids is to expand the scope of volunteer work in the Kingdom of Saudi Arabia to include many organizations, individual volunteers, and volunteering teams.



Volunteer opportunity

To display all volunteer work by organizations and teams on the platform.



Immediate assistance

Provides immediate assistance for emergency cases.



Check-in

To ensure that the volunteer will attend the event the e-help platform provides a check-in feature.

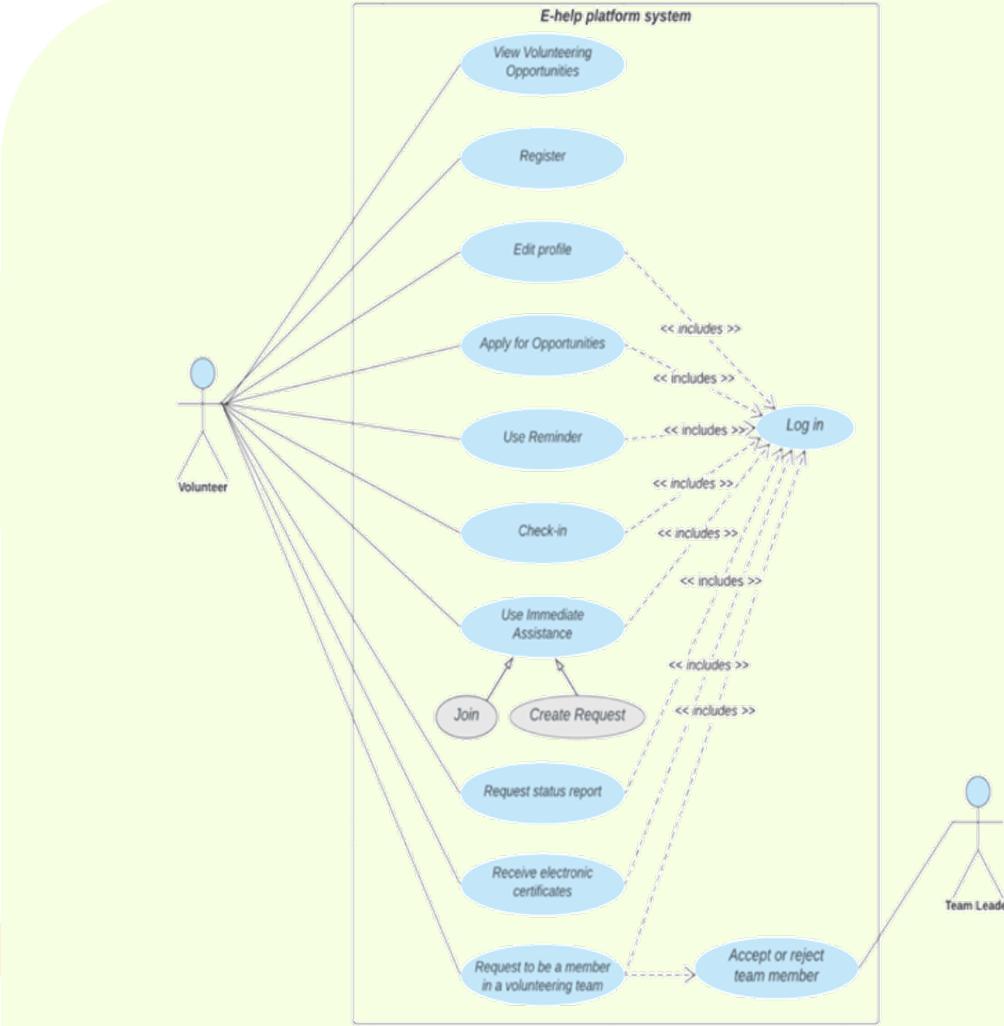


Virtual volunteering

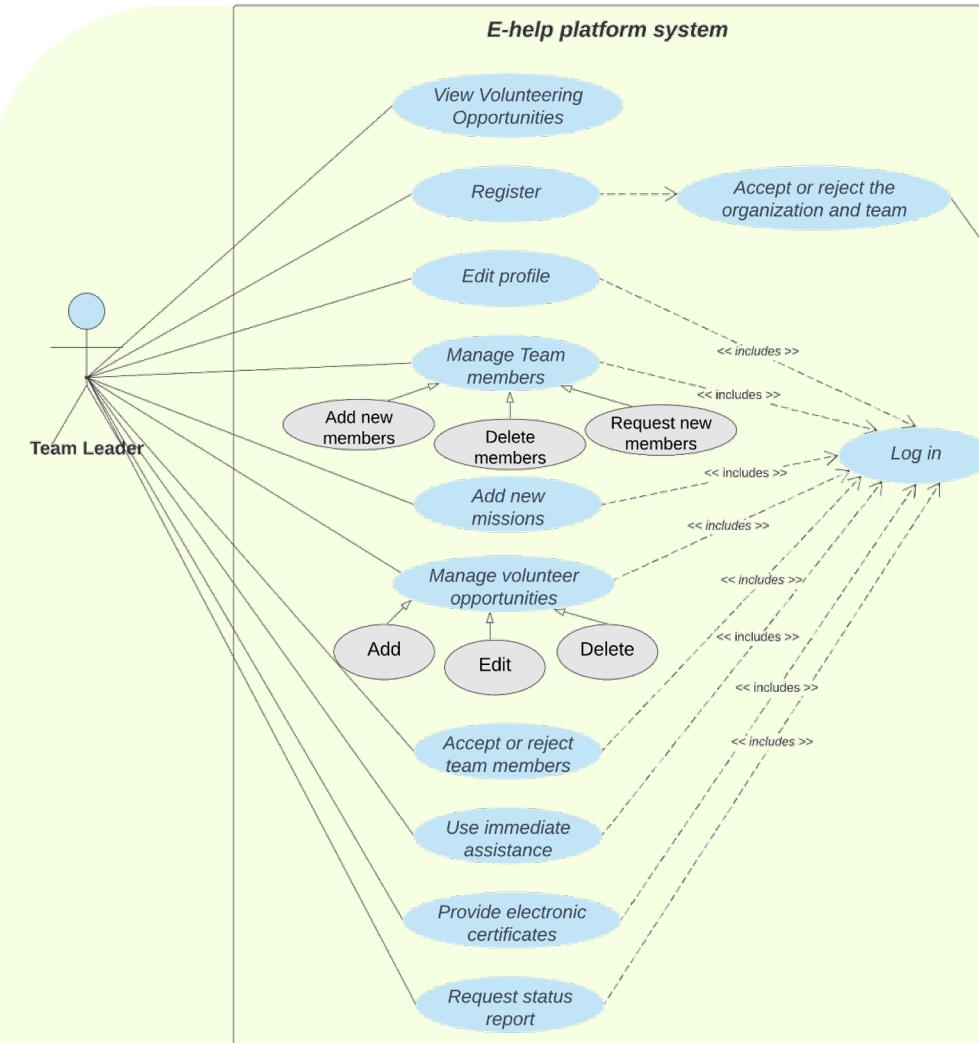
To provides virtual volunteering for people who search for volunteer opportunities they can complete via a home.



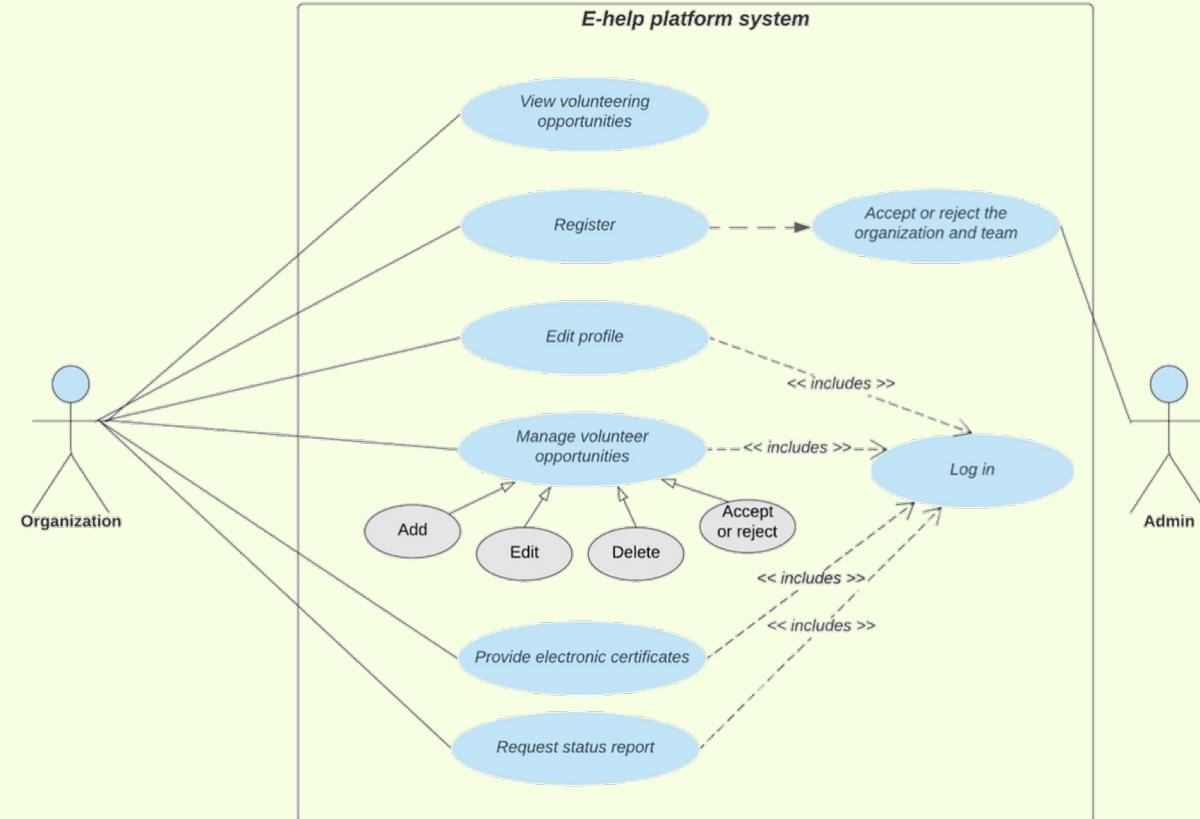
Use case Volunteer



Use case Team Leader

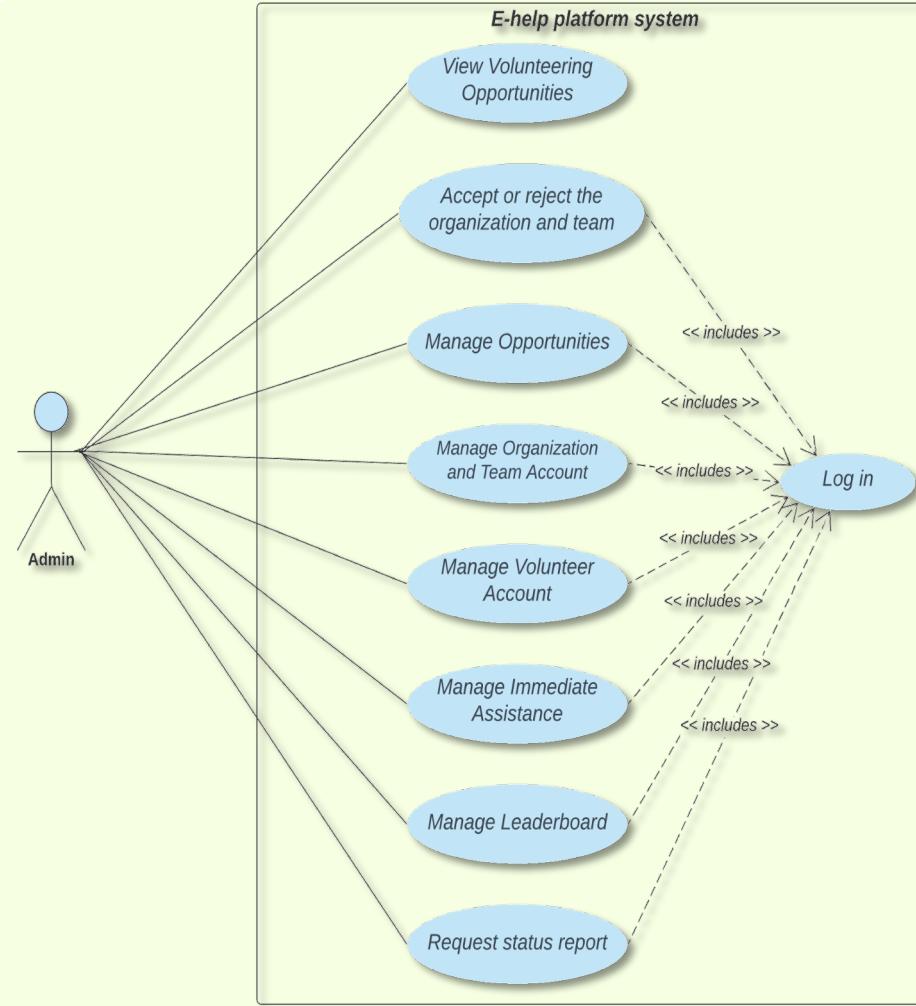


Use case Organization

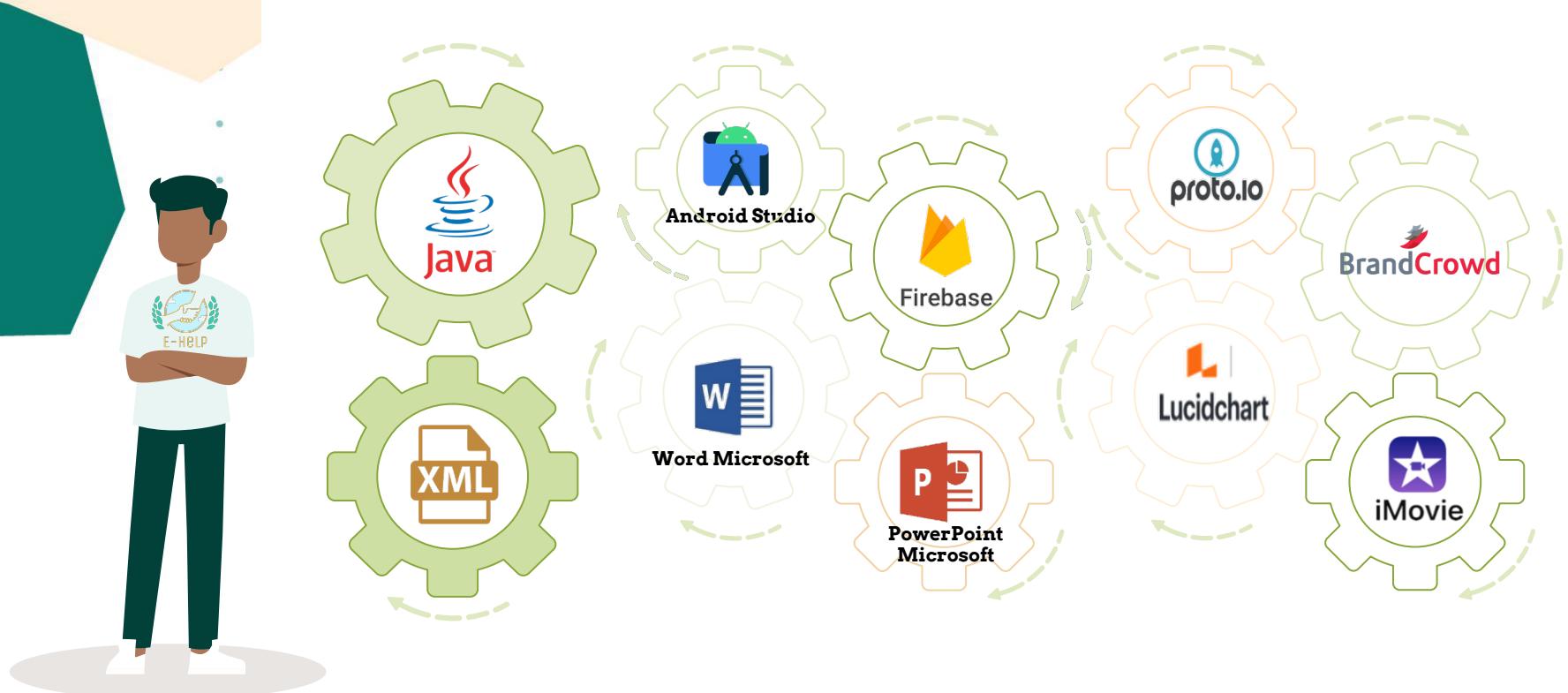




Use case Admin



Language and Tools



Accept or reject registration of organizations and volunteer teams

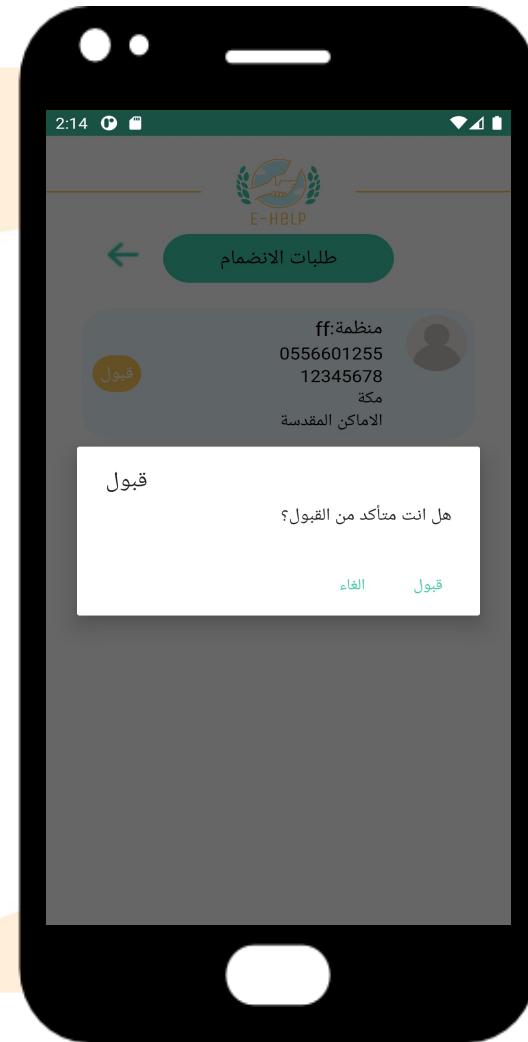
Main code

```
42
43 @Override
44 public void onBindViewHolder(RecyclerView.ViewHolder holder, final int position) {
45     final Holder holder1 = (Holder) holder;
46     final User user = list.get(position);
47     if (user.getUser_type() == 2) {
48         holder1.name.setText(":فريق"+user.getName_team() + "");
49         holder1.phone.setText(user.getPhone_num_team() + "");
50         holder1.id_num.setText(user.getId_num_leader() + "");
51         holder1.city.setText(user.getCityName() + "");
52         holder1.the_field.setText(holder1.listModels.get(user.getThe_field_id()).getName() + "");
53         holder1.description.setText(user.getDescription() + "");
54     } else if (user.getUser_type() == 3) {
55         holder1.name.setText(":منظمة"+user.getName_entity() + "");
56         holder1.phone.setText(user.getPhone_num_entity() + "");
57         holder1.id_num.setText(user.getId_num_entity() + "");
58         holder1.city.setText(user.getCity_entityName() + "");
59         holder1.the_field.setText(holder1.listModels.get(user.getThe_field_entity_id()).getName() + "");
60         holder1.description.setVisibility(View.GONE);
61     }
62     holder1.accept.setOnClickListener(new View.OnClickListener() {
63         @Override
64         public void onClick(View v) {
65             AlertDialog myQuittingDialogBox = new AlertDialog.Builder(context)
66                 .setTitle("قبول")
67                 .setMessage("هل انت متأكد من القبول؟")
68                 .setPositiveButton( text: "قبول", new DialogInterface.OnClickListener() {
69                     public void onClick(DialogInterface dialog, int whichButton) {
70                         dialog.dismiss();
71                         holder1.dialog1.show();
72                         holder1.mdatabase.child(user.getId())
73                             .child("Active").setValue(true).addOnCompleteListener(new OnCompleteListener<Void>() {
74                             @Override
75                             public void onComplete(@NonNull Task<Void> task) {
76                                 holder1.dialog1.dismiss();
77                                 Toast.makeText(context, text: "تم قبول الطلب", Toast.LENGTH_SHORT).show();
78                                 notifyDataSetChanged();
79                             }
80                         });
81                     }
82                 });
83             }
84         }
85     );
86 }
```

Main code

User Interface

- Accept or reject registration of organizations and volunteer teams





Statistics at the home page

Main code

```
67
68  ↗
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
...
128  ↗
129
130
131
132
133
134
135

@Override
public void onDataChange(DataSnapshot dataSnapshot) {
    UserVolunteer.clear();
    num_val = 0;
    number_team = 0;
    number_org = 0;
    if (dataSnapshot.exists()) {
        for (DataSnapshot snapshot : dataSnapshot.getChildren()) {
            User user = snapshot.getValue(User.class);
            if (user.getUser_type() == 1) {
                UserVolunteer.add(user);
                num_val++;

            } else if (user.getUser_type() == 2) {
                number_team++;

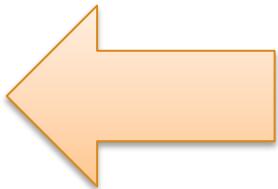
            } else if (user.getUser_type() == 3) {
                number_org++;
            }
        }
        num_volunteer.setText(num_val + "");
        num_team.setText(number_team + "");
        num_org.setText(number_org + "");
    }
}

public void onDataChange(DataSnapshot dataSnapshot) {
    number_volunteer_opertunity=0;
    for (DataSnapshot snapshot : dataSnapshot.getChildren()) {
        number_volunteer_opertunity++;
    }
    num_volunteer_opertunity.setText(number_volunteer_opertunity+"");
}
```

Main code

User Interface

- Statistics at the home page





Leader Board at the home page

Main code

```
98
99 t↑
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115

Collections.sort(UserVolunteer, new Comparator<User>(){
    public int compare(User obj1, User obj2) {
        return Integer.valueOf(obj2.getPoint()).compareTo(Integer.valueOf(obj1.getPoint()));
    }
});

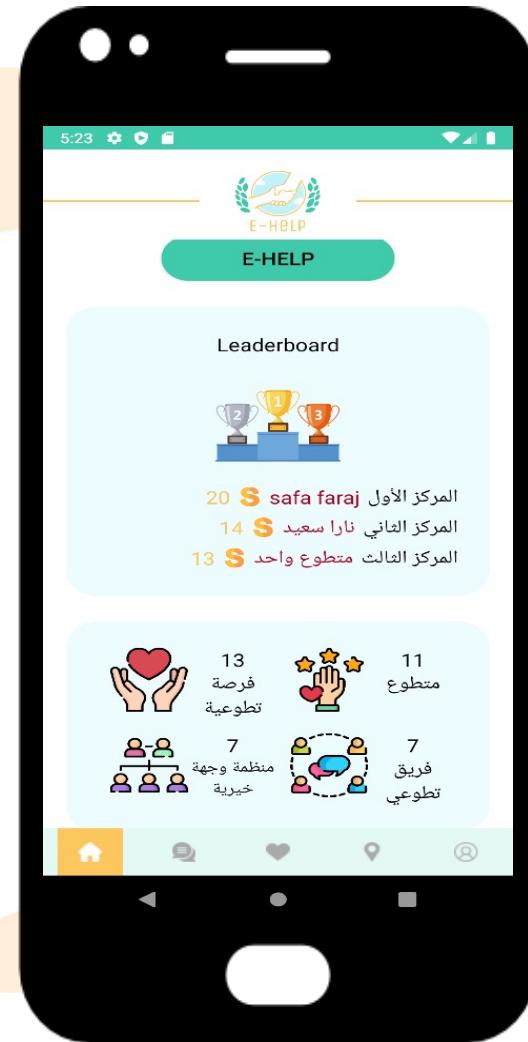
if(UserVolunteer.size()>3){
    name1.setText(UserVolunteer.get(0).getFirst_name()+" "+UserVolunteer.get(0).getLast_name());
    name2.setText(UserVolunteer.get(1).getFirst_name()+" "+UserVolunteer.get(1).getLast_name());
    name3.setText(UserVolunteer.get(2).getFirst_name()+" "+UserVolunteer.get(2).getLast_name());

    score1.setText(UserVolunteer.get(0).getPoint()+"");
    score2.setText(UserVolunteer.get(1).getPoint()+"");
    score3.setText(UserVolunteer.get(2).getPoint()+"");
}
```

Main code

User Interface

- Leader Board at the home page





the Score

Main code

```
public void onClick(DialogInterface dialog, int whichButton) {  
  
    dialog.dismiss();  
    dialog1.show();  
    for (int i = 0; i < resultsList.size(); i++) {  
        if (resultsList.get(i).isConfirmAttendance()) {  
            int finalI = i;  
            mdatabase.child(resultsList.get(i).getId_member())  
                .child("accepted").setValue(true).addOnCompleteListener(new OnCompleteListener<Void>() {  
                    @Override  
                    public void onComplete(@NonNull Task<Void> task) {  
                        dialog1.dismiss();  
                        Toast.makeText(context, OpportunitiesParticipantsActivity.this, text: "پـ", Toast.LENGTH_SHORT).show();  
                        // پـ کار و مـ از سـمـ از سـمـ  
                        mdatabaseUser.child(resultsList.get(finalI).getId_member())  
                            .child("point").runTransaction(new Transaction.Handler() {  
                                @Override  
                                public Transaction.Result doTransaction(MutableData mutableData) {  
                                    Integer score = mutableData.getValue(Integer.class);  
                                    if (score == null) {  
                                        return Transaction.success(mutableData);  
                                    }  
                                    mutableData.setValue(score + resultsList.get(finalI).getNum_h());  
  
                                    return Transaction.success(mutableData);  
                                }  
                                @Override  
                                public void onComplete(DatabaseError databaseError, boolean b, DataSnapshot dataSnapshot) {  
                                }  
                            });  
                    }  
                });  
    }  
};
```

Main code

User Interface

Score at volunteer profile.





Add a new volunteering opportunity

Main code

```
156     findViewById(R.id.buttonPublish).setOnClickListener(new View.OnClickListener() {
157         @Override
158         public void onClick(View v) {
159             if (validation()) {
160                 dialogM.show();
161                 FirebaseAuth user = FirebaseAuth.getInstance().getCurrentUser();
162                 String key = database.push().getKey();
163
164                 OpportunitiesModel opportunitiesModel=new OpportunitiesModel(key,name.getText().toString(),
165                         description.getText().toString(), selectedNameTheField, name_organization.getText().toString(),
166                         skills.getText().toString(), num_hour.getText().toString(), num_valunteer.getText().toString(),
167                         gender.getText().toString(), selectedNameCity, start_date.getText().toString(),
168                         end_date.getText().toString(), actualB, degree, lat, lng, user.getUid(), active: false) ;
169
170                 database.child(key).setValue(opportunitiesModel).addOnCompleteListener(new OnCompleteListener<Void>() {
171                     @Override
172                     public void onComplete(@NonNull Task<Void> task) {
173                         dialogM.dismiss();
174                         Toast.makeText( context: AddOpportunitiesActivity.this, text: "تمت إضافة بنجاح", Toast.LENGTH_SHORT).show();
175                         finish();
176                     }
177                 }).addOnFailureListener(new OnFailureListener() {
178                     @Override
179                     public void onFailure(@NonNull Exception e) {
180                         dialogM.dismiss();
181                         Toast.makeText( context: AddOpportunitiesActivity.this, text: "حدث خطأ" + e.getMessage(), Toast.LENGTH_SHORT).show(); 18
182             }
183         }
184     }
185 }
```

Main code

User Interface

- Add a new volunteering opportunity





Use Check-in

Main code

```
195     Location mLastLocation;
196     Marker mCurrLocationMarker;
197     FusedLocationProviderClient mFusedLocationClient;
198     LocationRequest mLocationRequest;
199
200     boolean isSuccess = true;
201     LocationCallback mLocationCallback = onLocationResult(locationResult) -> {
202         List<Location> locationList = locationResult.getLocations();
203         if (locationList.size() > 0) {
204             //The last location in the list is the newest
205             gps_off.setVisibility(View.GONE);
206             gps_online.setVisibility(View.VISIBLE);
207             Location location = locationList.get(locationList.size() - 1);
208             Log.i( tag: "MapsActivity", msg: "Location: " + location.getLatitude() + " " + location.getLongitude());
209             mLastLocation = location;
210             if (mCurrLocationMarker != null) {
211                 mCurrLocationMarker.remove();
212             }
213             Location loc2 = new Location( provider: "");
214             loc2.setLatitude(opportunitiesModel.getLatitude());
215             loc2.setLongitude(opportunitiesModel.getLongitude());
216             float distanceInMeters = location.distanceTo(loc2);
217
218             float KMTrue = 1 * 1000; //المسافة المطلوبة
219             if (distanceInMeters <= KMTrue) {
220                 mdatabase.child("confirmAttendance").setValue(true).addOnCompleteListener(new OnCompleteListener<Void> {
221                     @Override
222                     void onComplete(@NonNull Task<Void> task) {
223                         if (task.isSuccessful()) {
224                             Log.d("MapsActivity", "Attendance confirmed successfully");
225                         } else {
226                             Log.e("MapsActivity", "Attendance confirmation failed", task.getException());
227                         }
228                     }
229                 });
230             }
231         }
232     };
233 }
```

Main code

```
226
227     *↑
228
229
230
231
232
233     ✅
234
235     *↑
236     ✅
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
```

```
    @Override
    public void onComplete(@NonNull Task<Void> task) {
        dialog1.dismiss();
        if (isSuccess) {
            AlertDialog alertDialog = new AlertDialog.Builder( context: DetailesCheckSiteActivity.this).create();
            alertDialog.setTitle("تم");
            alertDialog.setMessage("تم الوصول بنجاح");
            alertDialog.setIcon(getApplicationContext().getDrawable(R.drawable.check_mark));
            alertDialog.setButton(AlertDialog.BUTTON_NEUTRAL, text: 'تم',
                new DialogInterface.OnClickListener() {
                    public void onClick(DialogInterface dialog, int which) {
                        dialog.dismiss();
                        finish();
                    }
                });
            alertDialog.show();
        }
        isSuccess = false;
        check_is_one=false;
    });
}

} else {
    dialog1.dismiss();
    Toast.makeText( context: DetailesCheckSiteActivity.this, text: 'المكان غير متطابق مع الفرمة', Toast.LENGTH_SHORT).show();
    finish();
}
```

Main code

User Interface

Use Check-in





Request immediate assistance

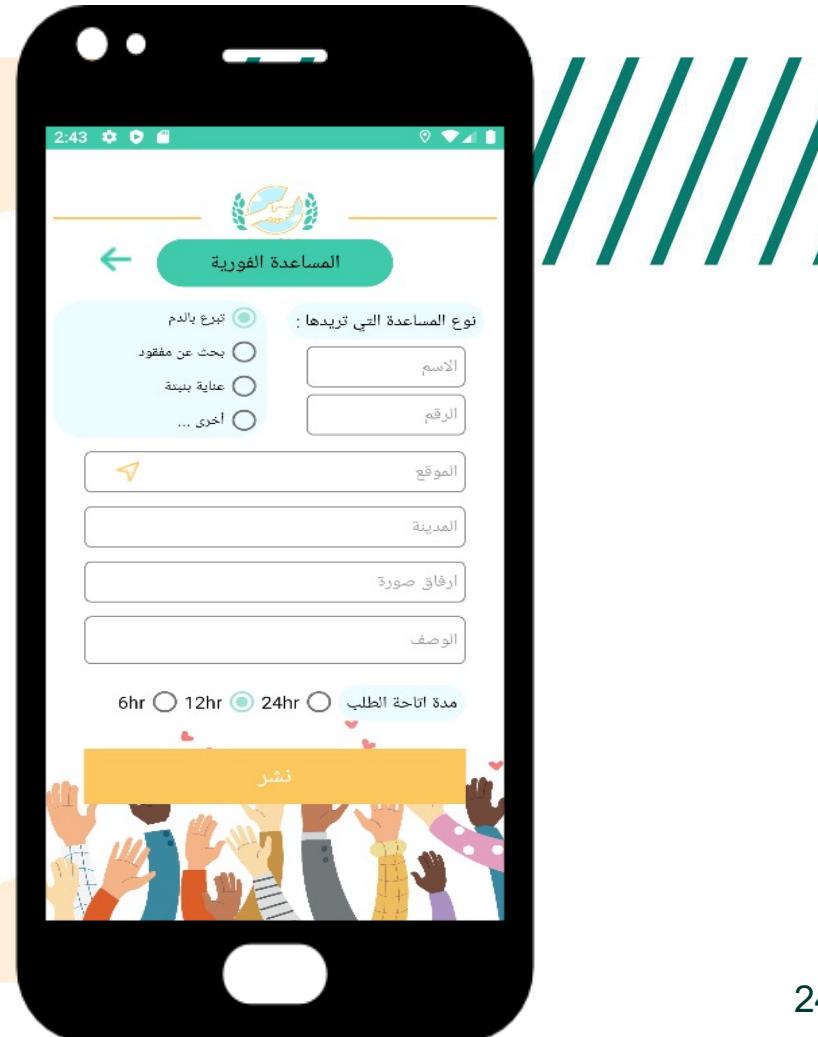
Main code

```
162  
183     findViewById(R.id.buttonPublish).setOnClickListener(new View.OnClickListener() {  
184         @Override  
185         public void onClick(View v) {  
186             if (validation()) {  
187                 dialogM.show();  
188                 FirebaseAuth user = FirebaseAuth.getInstance().getCurrentUser();  
189                 String key = database.push().getKey();  
190  
191                 if (type.equals("آخر")) {  
192                     type = more.getText().toString();  
193                 }  
194                 HelpModel helpModel = new HelpModel(key, name: name.getText().toString() + "",  
195                                         number: phone.getText().toString() + "", type: type + "",  
196                                         location: locationET.getText().toString() + "", city: city.getText().toString() + "",  
197                                         img_url: link + "", details: details.getText().toString() + "",  
198                                         time_end: timeH + "", endAt: System.currentTimeMillis() + (timeH * 60 * 60 * 1000), user.getUid(), Active: true);  
199  
200                 database.child(key).setValue(helpModel).addOnCompleteListener<Void>() {  
201                     @Override  
202                     public void onComplete(@NonNull Task<Void> task) {  
203                         dialogM.dismiss();  
204                         Toast.makeText(context: AddImmediateHelpActivity.this, text: "تمت الاضافة بنجاح", Toast.LENGTH_SHORT).show();  
205                         finish();  
206                     }  
207                 }  
208             }  
209         }  
210     }  
211 }
```

Main code

User Interface

Request immediate assistance



Post an advertisement requesting new members

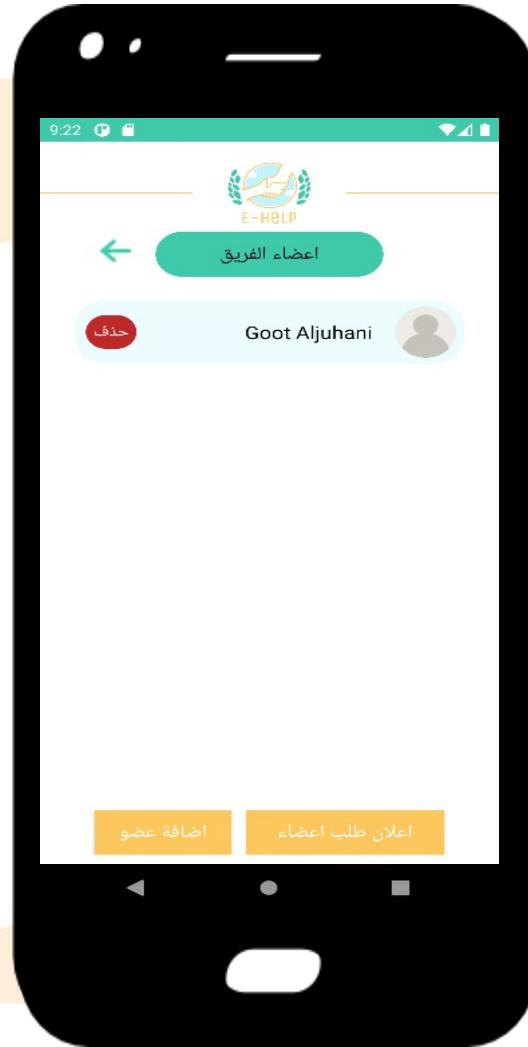
Main code

```
68     if (dataSnapshot.exists()) {  
69         User user = dataSnapshot.getValue(User.class);  
70         if (user.isIs_ads()){  
71             findViewById(R.id.remove_ads_order_member).setVisibility(View.VISIBLE);  
72             findViewById(R.id.ads_order_member).setVisibility(View.GONE);  
73             findViewById(R.id.remove_ads_order_member).setOnClickListener(new View.OnClickListener() {  
74                 @Override  
75                 public void onClick(View v) {  
76                     dialogM.show();  
77                     databaseReference.child("is_ads").setValue(false).addOnCompleteListener(new OnCompleteListener<Void>() {  
78                         @Override  
79                         public void onComplete(@NonNull Task<Void> task) {  
80                             dialogM.dismiss();  
81                             Toast.makeText(context: TeamMembersActivity.this, text: "تم الغاء الاعلان بنجاح", Toast.LENGTH_SHORT).show();  
82                         } } ); } } }  
83         else {  
84             findViewById(R.id.remove_ads_order_member).setVisibility(View.GONE);  
85             findViewById(R.id.ads_order_member).setVisibility(View.VISIBLE);  
86             findViewById(R.id.ads_order_member).setOnClickListener(new View.OnClickListener() {  
87                 @Override  
88                 public void onClick(View v) {  
89                     dialogM.show();  
90                     databaseReference.child("is_ads").setValue(true).addOnCompleteListener(new OnCompleteListener<Void>() {  
91                         @Override  
92                         public void onComplete(@NonNull Task<Void> task) {  
93                             dialogM.dismiss();  
94                             Toast.makeText(context: TeamMembersActivity.this, text: "تم الاعلان بنجاح", Toast.LENGTH_SHORT).show();  
95                         } } ); } } } } } } }
```

Main code

User Interface

- Post an advertisement.



System Testing

White-box Testing

- The best way to find errors and vulnerabilities .
- Testing started early.
- Comprehensive application test.

Integration Testing

- identifying integration issues between the modules.
- The application is rigorously tested to detect and eliminate all functional defects.

Black-box Testing

- Does not require to know programming languages.
- Test is performed from a user's point-of-view.



Non-Functional Requirement

The survey result of organizations and teams



Agreed that the application helps volunteer teams and organizations to spread volunteer opportunities more easily.



See that the application covers all the needs of volunteer teams and organizations.



Agreed that the process of navigating between pages is easy and clear.

Non-Functional Requirement

The survey result of individuals



Agreed that the application includes everything the volunteer needs.



See that the application facilitates the process of volunteering and communication.



Recommend E-help application to volunteers.

Achieved Functional Requirements

Admin

- View volunteering opportunities 
- Accept or reject of organizations account 
- Accept or reject of volunteering opportunities. 



Volunteer

- View volunteering opportunities 
- Register 
- Edit profile 
- Register in a volunteering opportunity 
- Check-in 
- Be a member of volunteering team 
- Use Immediate Assistance 



Achieved Functional Requirements

Result and Discussion



Team Leader

- View volunteering opportunities ✓
- Register ✓
- Edit profile ✓
- Add / delete member ✓
- Accept / reject joining requests ✓
- Add mission and volunteering opportunities ✓
- Use Immediate Assistance ✓
- Confirm Check-in ✓

Organization

- View volunteering opportunities ✓
- Register ✓
- Edit profile ✓
- Add volunteering opportunities ✓
- Use Immediate Assistance ✓
- Confirm Check-in ✓



Non-functional requirements

Authentication

01

02

03

04

05

06

Availability

Maintenance

Integration

Future Work

Serving many voluntary organizations and teams for all regions of the Kingdom of Saudi Arabia

• Publish the application to be available to all users

Issuing a report from the application to document the volunteer hours

Create a Reminder to remind the volunteer of the volunteer opportunities they participates in

Enabling volunteer organizations and teams to issue certificates to volunteers



—Conclusion

The E-help application for voluntary and humanitarian aid was created and developed for all persons, organizations and teams wishing to spread volunteer opportunities.

