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Faculty of Engineering and Information Technology
Computer Engineering Department
Graduation Project 1 Report



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Disclaimer statement

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Abstract

Evento is mainly created to make public invitations for several events , It is made for all kinds of events (career fairs , trade shows , conferences , parties). Its importance come from arranging events invitations and clearly identifying everything related to the event (location , Time , Attendees , sessions , Speakers , Registration) .

Companies or Associations can make a contract with us to publish any event they are going to make with all information about it . Users have their own accounts on Evento to be able to see all upcoming events, that are in their interests and they can register to any available event. Also, they can follow each other and can see who's coming from their followers to the same event. Therefore, Users can create their own events , and Evento have notifications feature , to keep users tracking with their events and followers.

The application development process started with learning the needed software languages to develop the application , we use ionic cross platform with firebase . Then, finishing the design and building the functionalities. Finally, making testing to the whole application.

This application has been done before in different way such as “Eventus”[1] in Egypt, each event will be created as an independent application,. But in Palestine , until now there's no application offers the previous features.

Chapter 1:Introduction

1.Statement of the problem

With the rapid development of different areas of life, the need arose to keep abreast of these developments, follow them and take advantage of their advantages and services of all kinds. There is therefore a need to organize events related to these developments. Hence the idea to create or develop an application helps to organize and schedule these events.

It is worth mentioning here that what distinguishes this application or program from similar or similar services to a certain extent is that it provides the user with two types of management and scheduling of business. The first type is public events that are announced by certain parties of different types and are for all individuals or directed to specific individuals. And the second type is the organization of the user's daily work and everything related to the scheduling of his tasks determined by the application. This management is mainly done by notifications and real time data base .

2. Objectives of the work

The main objectives of this project are firstly to support all kinds of events and provide a simple application to publish them. Secondly, to facilitate users access to the activities they are interested in and remind them of the upcoming events.

3.Scope of the work

Our project deal with any person that concerned with any type of event and keep tracking of them, he can register in any event and can follow anyone in the application. Also, Anyone can create an event an invite people to it .

4. Significance or importance of your work

The importance of our project come from it can easily manage and schedule any type of event. Whereby the user can see all type of events that were announced by the specific sides and can take an action about each event such as attend it, pay for it (if it was not free), see whom will attend it , also can follow any person in the application, but we must mention that all these done after registration process in the application.

In addition, one of the most important thing in the software that any formal or informal side that want to publish any type of real event and aimed to reach it to all users can do it with its details and after that will be on the users accounts.

We must notice that the events that published on the users accounts real events and before publish process each events subject to verification(for example reject any event that contain illegal words).

Besides, it is user friendly any user can use it without any problem, can modify any feature dynamically, consists of many features that enable user to control and organize events in one application.

5.Organization of the report:

We organize our project as follows:

Chapter one:

This chapter consists of introduction of our project, purposes and goals of it, also explain who can use and benefit from it and finally the importance of this project.

Chapter two:

This chapter contains some standards, codes that we use through the development process of the applications.

Chapter three:

This section shows the current applications that are little similar in the main idea of our application, some comparisons between their features and services and our application features, let also say what is the new in our application and it is not available in the current ones.

Chapter four:

This part discuss in details the methods that are using in the software, tools, languages and the creation process of the application .

Chapter five:

This chapter presents the results of the application, and its features and services that are provided to the user.

Chapter six:

This section summarizes the aims, process of the application from the start point to the end take with considerations limitations and also final results.

Chapter seven:

Finally this part concludes the final outputs of the application, future work that can make to build on it to improve application more and more maybe in most cost-effective ways.

Chapter 2: Standards/Codes and Earlier course work

2.1 Standards

We start our project with learning these standards and how to use them:

2.2.1 Database standard

The type of the database that is used to build this application is firebase [2] real-time database. Firebase uses no-SQL database which considered as advantage in terms of scaling, it provides many features that benefits the developers such as authentication, database , storage hosting and some others .We must mention that it is built on Google infrastructure. It deals with ios, android and web platforms which make it flexible and dynamic.



Figure 1 Firebase logo

2.2.2 Ionic framework standard

Ionic framework [3] is an html5 used to build hybrid applications, we can think of it as front-end UI framework provide all of the look and feel UI interactions to make a user friendly and beautiful design.

It comes with a native-styled layout to operate it on IOS, Android or Web applications, also to run it as a native application it needs a native Cordova platform(that run on Node.js).



Figure 2 ionic logo

2.2.3 Angular standard

Angular [4] platform simplifies on the user to build applications. It combines templates , plugins , end to end tools and some dependencies.



Figure 3 Angular logo

Chapter 3: Literature Review

In recent times, with the huge development in all aspects of life, and with the rise of events, innovations and formal or informal invitations subjects that have become part of our daily lives, every day there is a new event in any area of human life.

So the main goal of this project is to provide a software that organize and schedule two types of events: personal user events and public events from any outside part. We must repeat that creation of event itself done using the same application.

Surely the concept of our application is not unique, there are also some similar applications related to organize events. But the special thing of our software is that the organization and creation of the events in the same application, and also it joins two types of them: personal events and public events. In addition to all that the software enable users to keep track of these events from the moment of creation or announced until it finished with all details.

The two main available applications have the similar idea are as follows:

1. Eventtus [5]

The idea of this application is that create an application for each events that allow users to handle and interact with this event. The problem of it is hard for users to deal with all applications for each event, we can say it is not flexible application. Also some events do not need specific application for it. We must not forget that it takes high storage. So it does not manage all events in one application.

2. Eventus [1]

Also this software make an application for each event planner but focus on direct communication of the attendees. It is somewhat similar to the previous one but it is not just for events but also career services and for students subjects.

However, these applications have advantages and services that benefit their users and it is certainly done with great skill. But the idea we want to deliver is that this app brings together all events based on the user's desire and also enables any side to advertise any particular event or invitation.

Chapter 4 : Methodology:

4.1 Tools and Materials

1.Npm console:

Npm opens up an entire world of JavaScript, it's the world largest software registry. The registry contains over 600000 packages(building blocks of code), and the developers use npm to share and borrow packages and many organizations use it to manage private development as well.

And it consists of three distinct components:

- a. The website: Use the website to discover packages, set up profiles, and manage other aspects of your npm experience. For example, you can set up Orgs (organizations) to manage access to public or private packages.
- b. Command line interface(CLI): runs from a terminal. This is how most developers interact with npm.
- c. Registry :is a large public database of JavaScript software and the meta-information surrounding it.

Ionic with npm:-

There is a lot of new terminology in Ionic, much of it having to do with Node and NPM.

Ionic npm packages:

There are two packages related to ionic on npm the first one is ionic CLI package and the second one is Ionic-Angular package.



Figure 4 npm logo

2.Firebase

As we said this is real-time database that has many advantages and used to build many real applications like trivago, venom, Ctrip, wattpad and other examples of applications.

Some of these advantages(features) are:

1. .Builds apps fast without managing infrastructure. Firebase gives you functionality like analytics, databases, messaging and crash reporting so you can move quickly and focus on your users.
2. Backed by Google, trusted by top apps Firebase is built on Google infrastructure and scales automatically, for even the largest apps.
3. One console, with products that work together. Firebase products work great individually but share data and insights, so they work even better together.

Firestore with ionic:

This plugin brings push notifications, analytics, event tracking, crash reporting and more from Google Firestore to your Cordova project! Android and iOS supported (including iOS 10).

To use firestore inside ionic application we must install Cordova and Ionic Native plugins:

```
$ ionic cordova plugin add cordova-plugin-firebase
```

```
$ npm install --save @ionic-native/firebase
```

3.Cordova

Cordova is a platform for building hybrid mobile applications using HTML, CSS and JavaScript.

Some features of cordova plugin:

- a. Command line interface(CLI).
- b. Cordova core components.
- c. Cordova plugins.
- d. License.

- Some advantages of cordova platform:
 1. Cordova offers one platform for building hybrid mobile apps, by using it we build mobile applications on different platforms – IOS, Android , Windows phone and others platforms.
 2. It is faster to develop hybrid app than native app so Cordova can save on the development time.
 3. There is no need to learn specific programming languages because when working on it we actually using javascript.

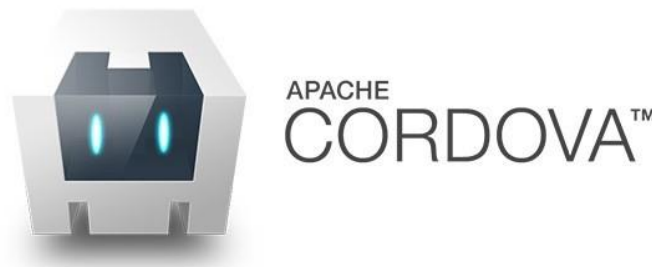


Figure 5 cordova logo

4.Node.js

Node.js is an open source server environment , it is free , run on different platforms(Linux, Windows, Mac OS X) and uses JavaScript on the server.

It is considered as one of the popular backend languages because it allows developer to backend part with JavaScript as well.

And the keys to communications between an ionic application and node.js server are requests and responses.

5.Angular

Angular 2 is an open source JavaScript framework to build web applications in HTML and JavaScript. It is a framework for mobile and desktop, and it has many features that make it powerful framework:

1. one of the most important features it is developed across all platforms : it is used for many deployment targets like for web, mobile web, native mobile and native desktop.
2. speed and performance : angular achieve the maximum speed possible on the web platform and take it further through web workers and server- side rendering.
3. Incredible tooling: build features quickly with simple, declarative templates. Extend the template language with application components and use a wide array of existing components.

Angular with ionic:

Ionic is completely made up of angular directives and components.

6. typescript

Typescript is a javascript for application-scale development. It is a strongly dependent , object oriented , compiled language. It is considered as a language and set of tools. That means typescript is a javascript plus some additional components.

Some features of typescript:

- a. Typescript supports other javascript libraries.
- b. Typescript is portable.
- c. It can be used with client-side and server-side development.

7.JSON

It is Javascript Object Notation, it is a syntax for storing and exchanging data and json a text written with javascript object notation.

We use json if we want to load some data into our applications because a common use of json is to exchange data to/from web server, and one of the most important function to handle data with json is `JSON.stringify()`, this function convert javascript function into a string.

Also json files can interact with firebase database in ionic applications, we can store and retrieve json data to/from firebase by using import json or export json in firebase.

4.2 Building Database

We use Firebase to build the needed tables :

1. Users Table

At this table , each user details are stored with a unique ID for each user . Each user has these information with his ID :



Figure 6 Users Table

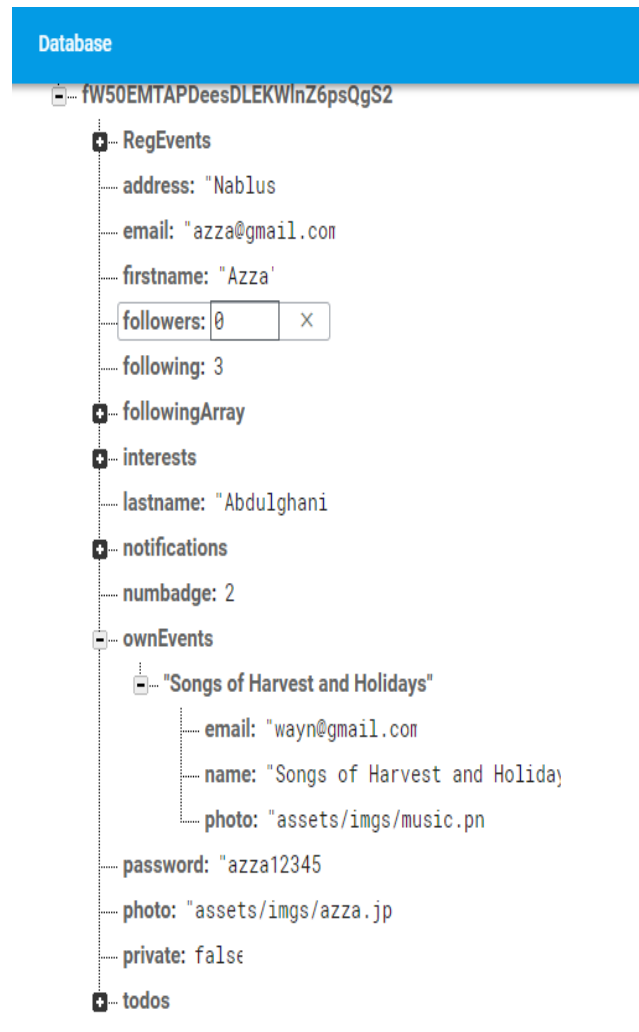


Figure 7 User Data stored in firebase

2. Events Table

A table consists of all registered events in the application :



Figure 8 Events Table

Each event has a specific data should provided by the owner of event :

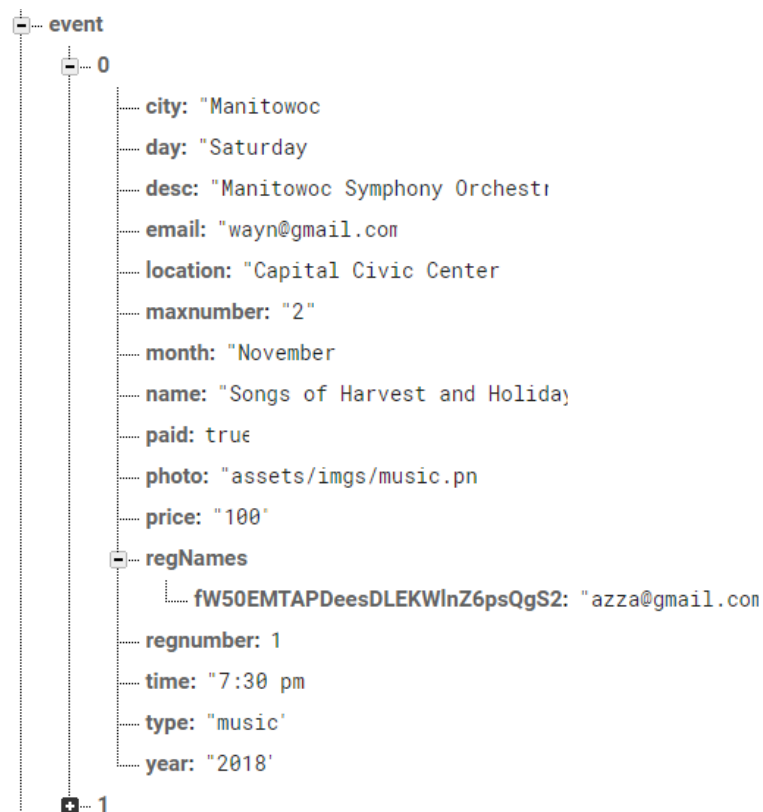


Figure 9 Events Data stored in firebase

3. “Contact us” Table

This table has all messages that is sent by users , as a feedback for the application :

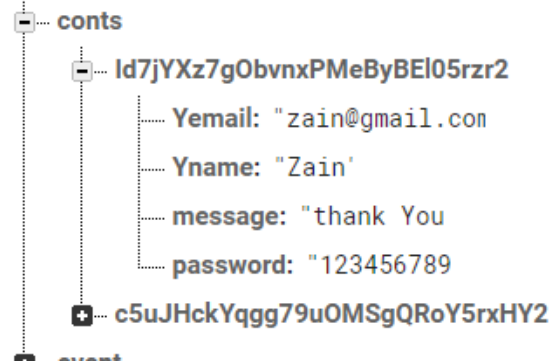


Figure 10 contact us Table

4.3 Designing Pages and implementing their functionalities

Evento has several pages :

4.3.1 Welcome Page

This page is the start of application , it contains 4 buttons (Sign up , Log in , contact us) as shown :

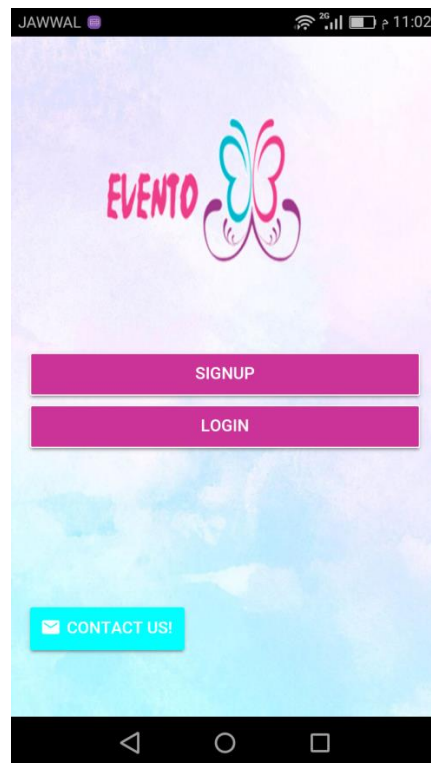


Figure 11 Welcome Page

4.3.2 Sign-up Page

At this page , users can register to the application . They should provide their information such as (Name , Address , Email , Password , Photo , And their interests) . User should choose which type of interests he want to follow .

The chosen interests will be shown at the home page of user , the user can not see any event that is not at his interests .

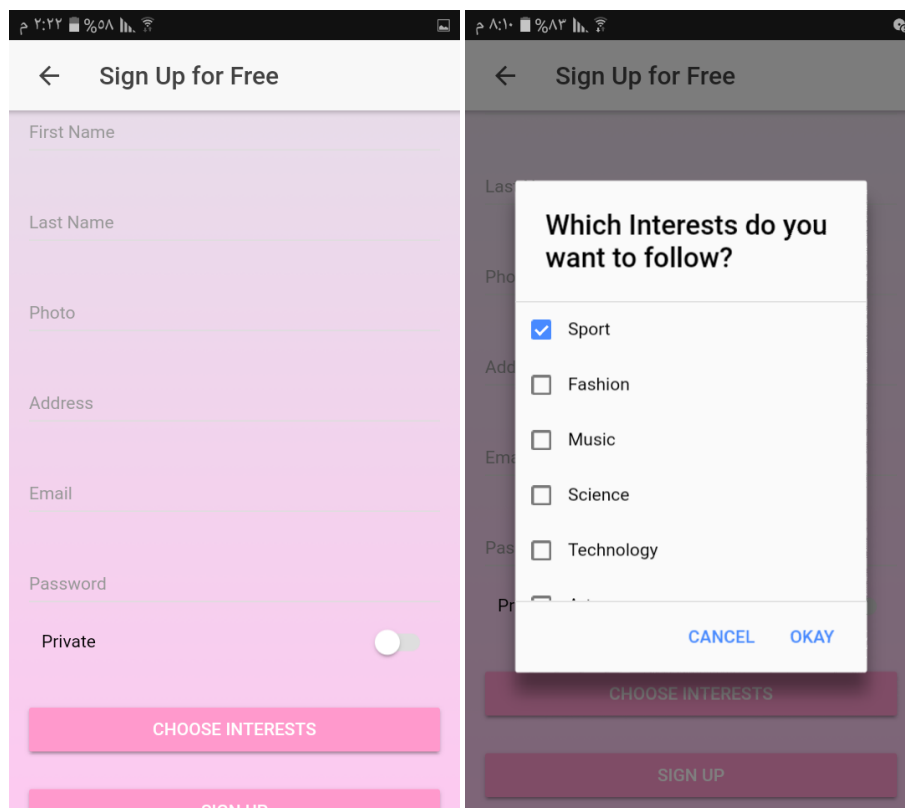


Figure 12 Sign Up Page with choosing interests

4.3.3 Log-In Page

At this page , user can log in to the application and his profile page by his email and password :

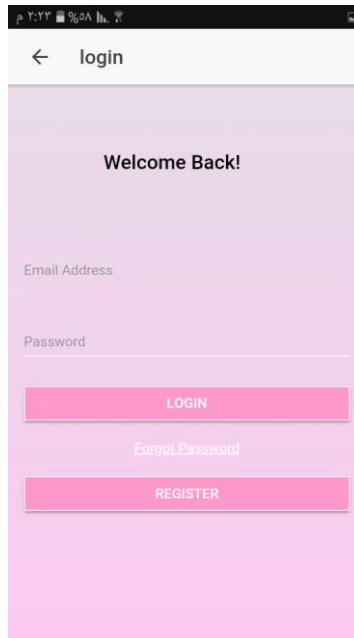
A mobile application screenshot of the login page. The page has a light pink background. At the top, there is a white header bar with a back arrow and the text "login". Below the header, the text "Welcome Back!" is centered. There are two input fields: "Email Address" and "Password". Below the "Password" field is a pink button labeled "LOGIN". Underneath the "LOGIN" button is a link that says "Forgot Password". At the bottom of the form area is another pink button labeled "REGISTER".

Figure 13 Log-in Page

4.3.5 Contact us Page

Anyone can send to us a feedback or message in this page

A mobile application screenshot of the contact page. The page has a light pink background. At the top, there is a white header bar with a back arrow. Below the header, the text "CONTACT US!" is centered. There are four input fields: "Your Name *", "Your Email *", "Your Password", and "Type your message". Below the "Type your message" field is a pink button labeled "SEND MESSAGE".

Figure 14 Contact us Page

4.3.6 Home Page

This page contains all related events to the user interests . In other words , just the event types that are in the user interests will be appeared .

Events can be Free or Paid , user can register in the event that has free space and can pay by using it stripe checkout ID .

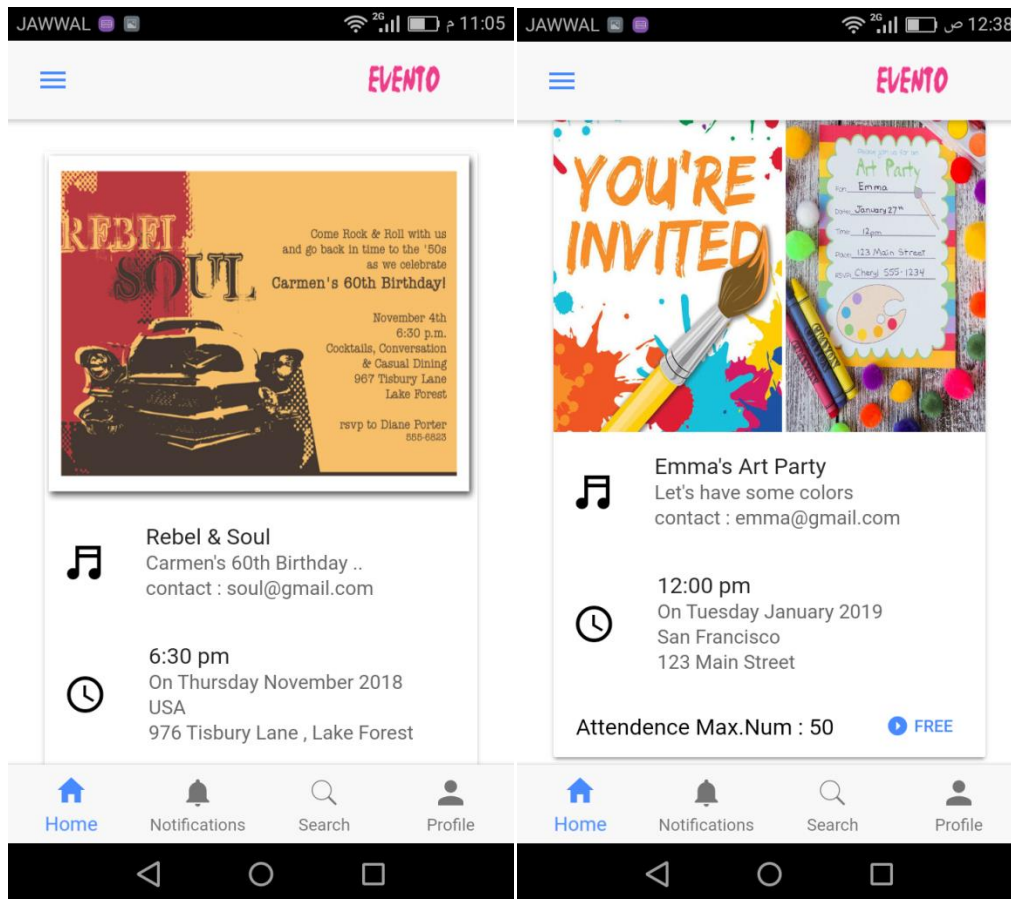


Figure 15 Home Page

4.3.7 Notification Page

User can receive different notifications :

- if anyone started following him , a notification with the name of who started following him will be arrived
- When a new event from his interests is added to the application.
- When he has an event next day
- When he update his account

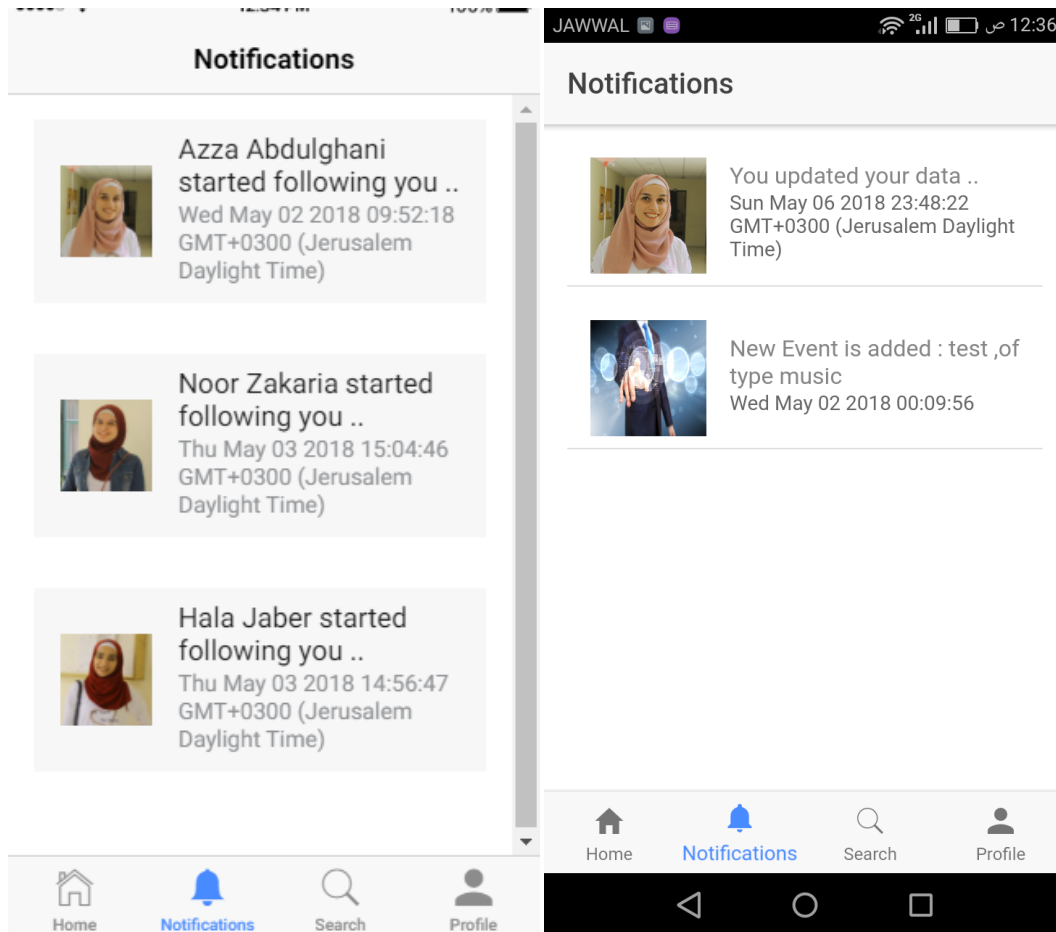


Figure 16 Notification Page

4.3.8 Search Page

User can search about any other users and follow anyone he want . Also, he can see other users registered events if their accounts are public . If the account is private , no one can see its registered events, except the owner of account .

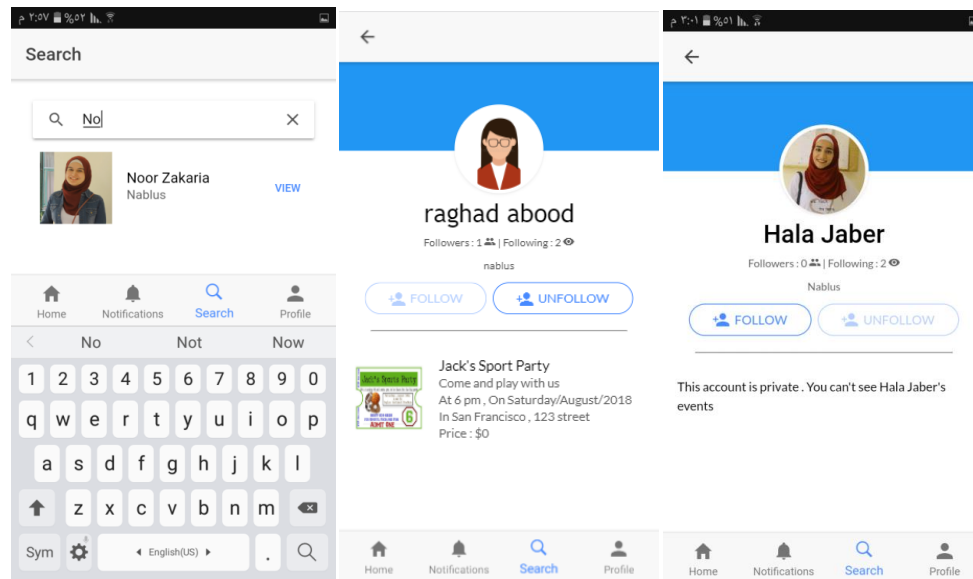


Figure 17 Search Page & Public Profile Page & Private Profile Page

4.3.9 Profile Page

This page contains events that the user register in . And can See the number of followers and following . as shown in Figure 18

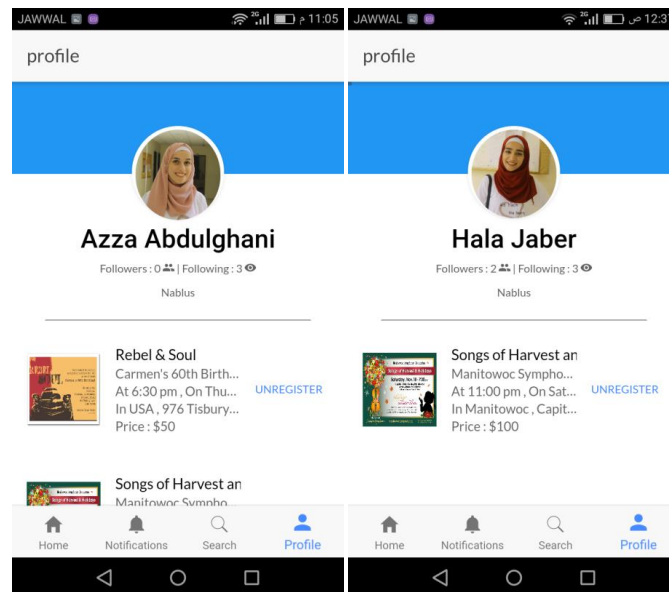


Figure 18 Profile Page

4.3.10 Side Menu Page

The side menu has several pages and methods :

1. My Calendar : user can add his personal events to calendar , No one can see them except him .
2. Followers page : show the names of followers .
3. Followings Page : show the names of followings .
4. Create event : to create a public event with specific type
5. Own events page : to show the public events that the user is created and see the names of the registered people .
6. Edit profile : to update user account .
7. Log out : to log out from application .

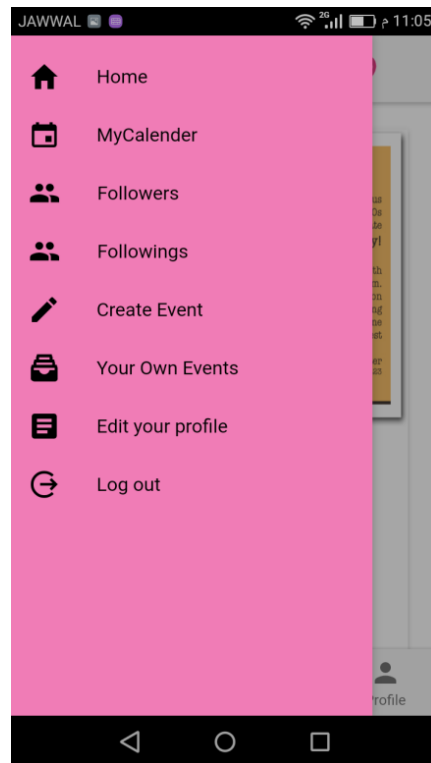


Figure 19 Side Menu

4.3 Codes

Some codes from the implementation of functionalities :

1. Show interests Events for user at home page

```
11 <ion-content>
12   <ng-container *ngFor="let seq of (item|async)?.interests; let y = index" >
13     <ng-container *ngFor="let item of arrData; let i = index">
14       <ng-container *ngIf = "seq.indexOf(item.type) > -1">
15         <ion-item>
16           <ion-card>
17             
18             <ion-item>
19               <ion-icon ios="ios-musical-notes" md="md-musical-notes" item-start large></ion-icon>
20               <h2>{{item.name}} </h2>
21               <p>{{item.desc}}</p>
22               <p>contact : {{item.email}}</p>
23             </ion-item>
24             <ion-item>
25               <ion-icon ios="ios-time" md="md-time" item-left large></ion-icon>
26               <h2>{{item.time}}</h2>
27               <p>On {{item.day}} {{item.month}} {{item.year}} </p>
28               <p>{{item.city}}</p>
29               <p>{{item.location}}</p>
30             </ion-item>
31             <ion-item>
32               <span item-left>Attendance Max.Num : {{item.maxnumber}}</span>
33               <button ion-button icon-left clear item-end [disabled]="item.maxnumber-item.regnumber == 0 " *ngIf="item.paid" (click)="openPrice(item ,
34                 <ion-icon name="arrow-dropright-circle"></ion-icon>
35                 {{item.price}}
36               </button>
37               <button ion-button icon-left clear item-end [disabled]="item.maxnumber-item.regnumber == 0 " *ngIf="!item.paid" (click)="openFree(item ,
38                 <ion-icon name="arrow-dropright-circle"></ion-icon>
39                 Free
40               </button>
41               <p *ngIf="item.maxnumber - item.regnumber == 0">Number of Attendance is completed </p>
42             </ion-item>
43           </ion-card>
```

2. Use stripe checkout to pay for events

```
81 openPrice(item : Event , s:number){
82
83   let prompt = this.alertCtrl.create({
84     title: 'Register in the Event :)',
85
86     inputs: [
87       {
88         name: 'eventName',
89         placeholder: item.name,
90         value: item.name
91       },
92       {
93         name: 'name',
94         placeholder: 'your full name'
95       },
96       {
97         name: 'email',
98         placeholder: 'your email',
99         type: 'email'
100      },
101      {
102        name: 'cardNum',
103        placeholder: 'your card number',
104        type: 'number',
105        min: '100'
106      },
107      {
108        name: 'price',
109        value: item.price
110      }
111    ],
112    buttons: [
113      {
114        text: "purchase you ticket" ,
115
116        handler: data => {
117          this.afAuth.authState.subscribe(auth =>{
118            this.afDatabase.object('user/'+ this.userID+ '/RegEvents/'+item.name).set(data)
119            this.afDatabase.object('event/'+ item.name + '/regNames/' + auth.uid ).set({email : auth.email , name : this.userName + " "+ this.userName })
120            this.afDatabase.object('event/'+ item.name).update({"regnumber" : item.regnumber+1})
121            .then(() => this.navCtrl.setRoot(homePage))
122          })
123        }
124      }
125    ]
126  })
127  prompt.present()
128 }
```

Chapter 5: Results and Analysis

Evento application allows user to keep track of all types of events that they interested in, handle with the by attending, simple paying operation(if it is not free), see all attendees and can follow them, full notification system that provide notifications in many areas of the application, add or remove events that they interested in(modification process), create public events, invitations whether by the users from their own accounts or by any outside part such as companies, schedule personal events that is private just for the user and for sure contact us for feedback.

5.1 Main features:

5.1.1 Create event

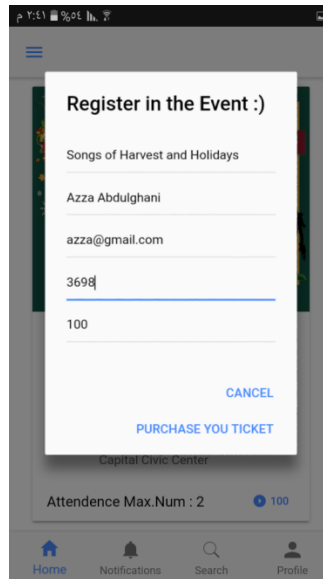
One of the most important feature that the application provide is create event service that allows any part or user to create any type of events with its all details such as name, place, date , city , paid or free, number of attendees , type of event and day of it.

The image displays two side-by-side screenshots of the 'Add Event' form in the Evento application. The left screenshot shows the form with fields for Event name, Email Addr, Event Description, Subject (set to Sport), Date (Saturday, January, 2018), Time, City, Location, Event Photo, and a Paid toggle switch. The right screenshot shows the same form with additional fields: Date (Saturday, January, 2018), Time, City, Location, Event Photo, Paid toggle switch, Price, and Max. Number of Attendees. Both screenshots have a pink border and a white background.

Figure 20 Create New Event

5.1.2 Pay for events

If the events is not free, the payment process done by stripe check out. The user provide full name, email address and card number.



Register in the Event :)

Songs of Harvest and Holidays

Azza Abdulghani

azza@gmail.com

3698

100

CANCEL

PURCHASE YOUR TICKET

Capital Civic Center

Attendance Max.Num : 2

Figure 21 Register in event and pay

5.1.3 Calendar

This handles personal events for the user that it may be daily events for example. The user can modify these events by removing , editing and adding new events.

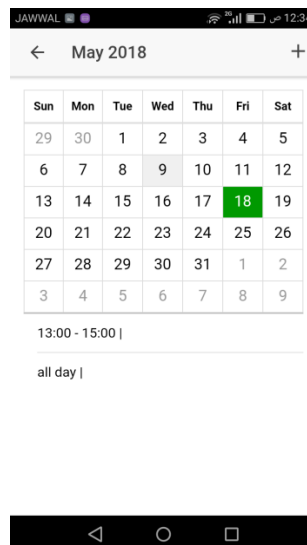


Figure 22 Calendar Page

5.1.4 Search for attendees

This property includes that the user can search for any attendees profile by name. In the future, we can add search based on event name or address.

5.1.5 Notification system

Also one of the major features in the application is that when a new event created the user will receive a notification, also when a user follow any other user there is also a notification.

5.1.6 Following property

This feature includes that user can follow any other user using this application from the attendees of specific event. Because of user can see all attendees for any event.

In the side menu, the user can see his followers and whom is following:

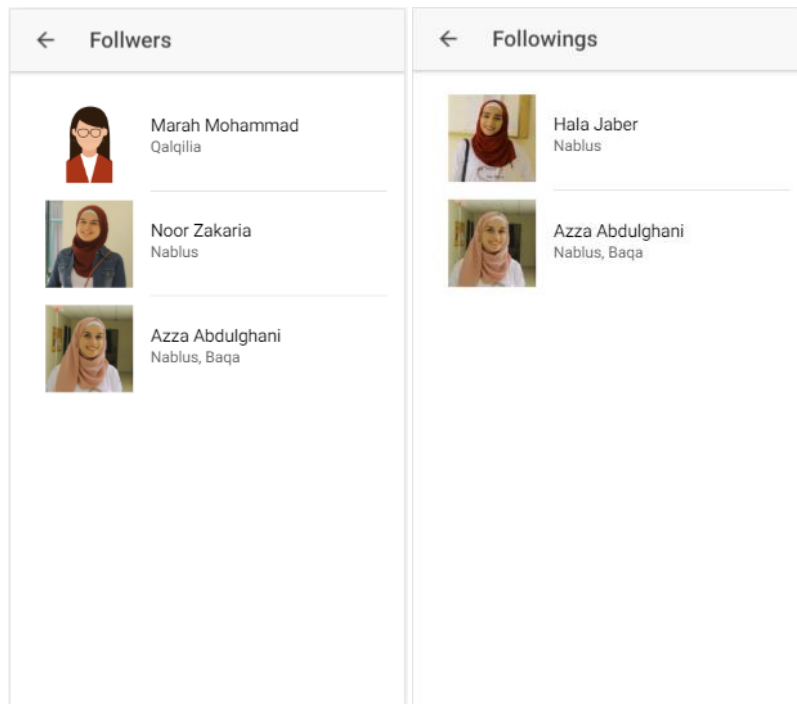


Figure 23 Followers Page & Followings Page

5.1.7 Show own Events

Each user can show his events and can delete any event he want . And, he can see all the details about the event and the registered names .

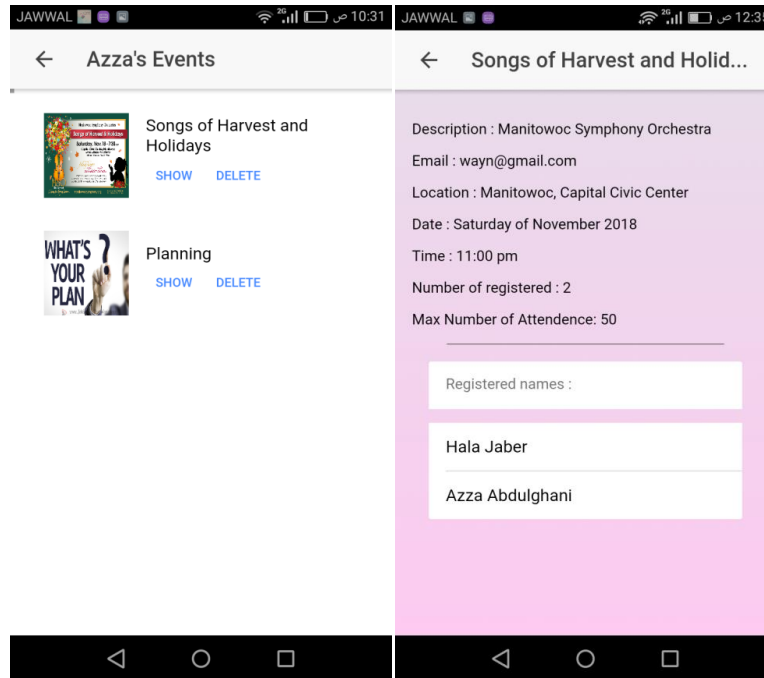


Figure 24 Show user events and events details

5.1.9 Update user data

Each user can update his data such as name, address, password, and interests .

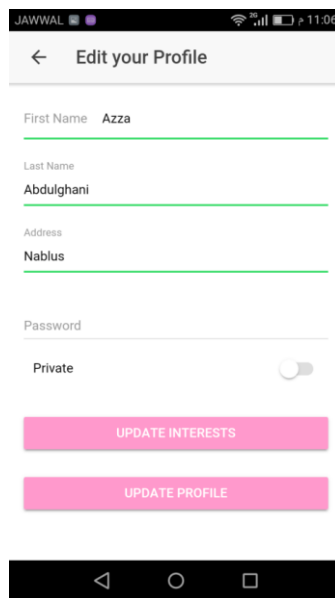


Figure 25 Update user data Page

5.1.10 Modifications

The application allow for users to keep track of specific type of events that choose them(during sign up process),if the user wants to change some events by remove them(not interested any more), add some new events these all done by this feature.

5.2 Minor features

5.2.1 Sign up process(registration)

This is a known feature in any real system consists providing some information about the user. One of the most important information is interests that based on it the events will displays on user account.

Also the user should provide ordinary information such as first and last names, and also email address that we use it in payment process and creation of the events later.

5.2.2 Login system

This is also ordinary process that requests from the user the email address and the password, and after verification the user will be on its own account.

5.2.3 Contact us

This is the last of these features that provide feedback for us for future improvement or any problem that may face the users. This is done by provide email address, password and the message that wants to be delivered..

5.3 Evento Web site

All above features are implemented also in a web site for application , some of the pages are shown below :

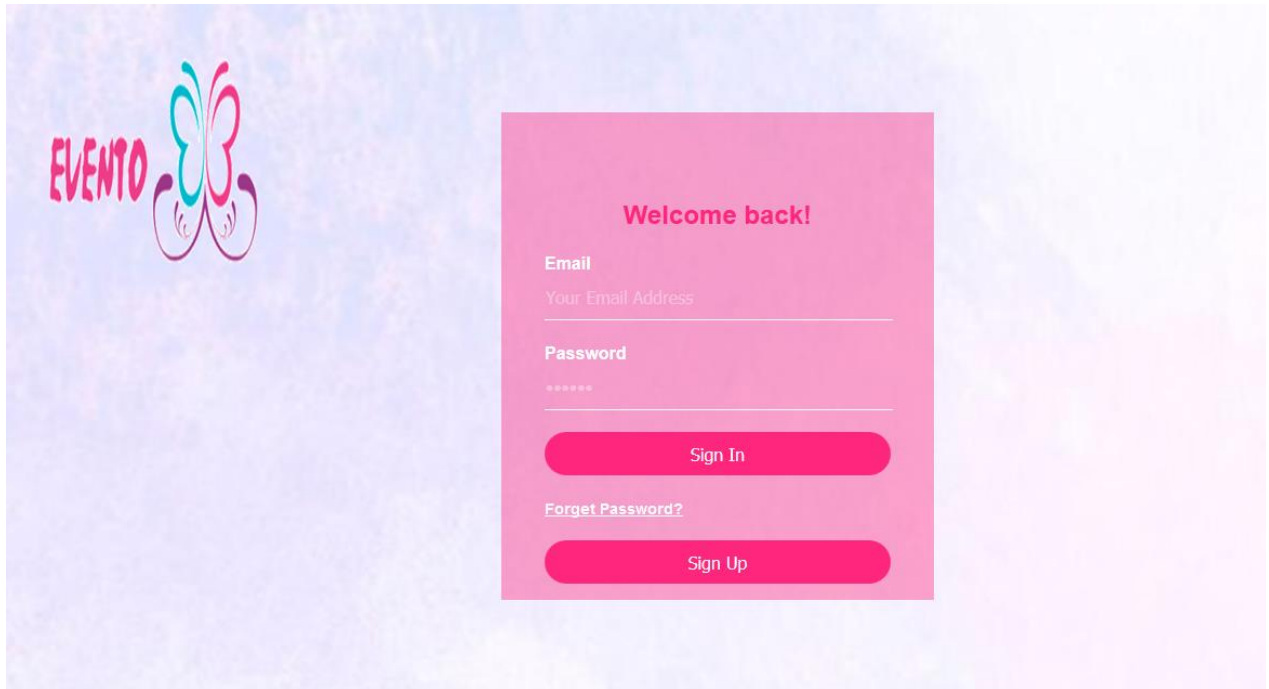


Figure 26 Welcome Web page

The image shows a web page with a light blue and purple gradient background. On the left is the 'EVENTO' logo, which consists of the word 'EVENTO' in a stylized red font next to a colorful butterfly icon. On the right is a white rectangular sign-up form. The form has a title 'Sign Up For Free' in bold black text. Below the title are several input fields: 'First Name', 'Last Name', 'Photo', 'Address', 'Email', and 'Password***'. There are two red buttons: 'Choose interests' and 'Sign Up'.

Figure 27 Sign up Web page

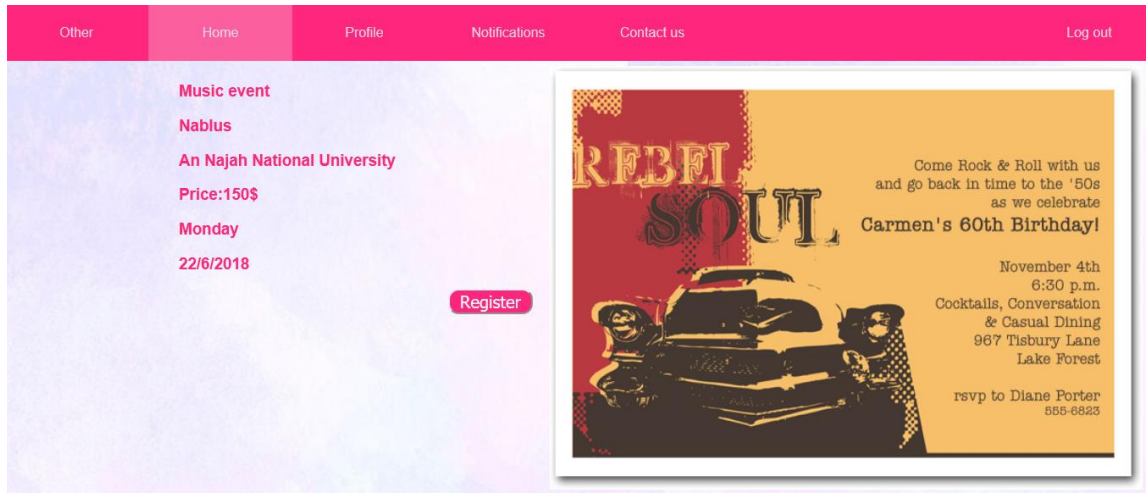


Figure 28 Register in Event Web page

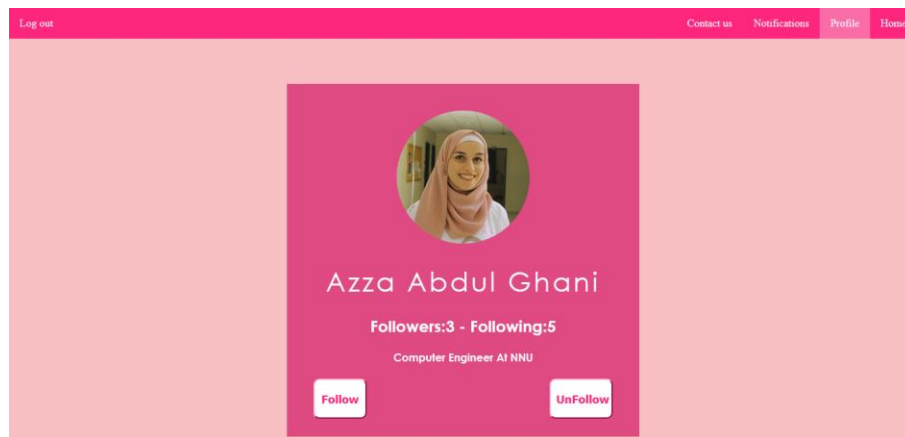


Figure 29 Show as user profile Web page

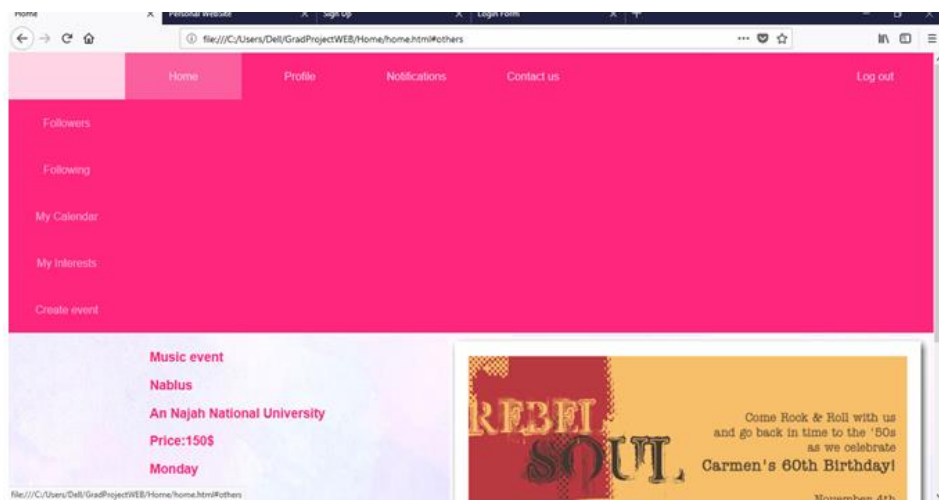


Figure 30 Menu Side in Web

Chapter 6: Discussion

As we say the main goals of this application is to simplify organization and scheduling operations for events which is become main part of our daily life, really there is a large importance of this application for all people in general and for specific users or some special users whom they are take care of many things related to these events.

In real world there is nothing perfect but we can do many things somewhat similar to perfects. We try hard to cover all features in most effective way that at least provide good performance and speed.

After development process over period of time let's say at least three months, tracking of the problems and work well to overcome on it, we could perform and manage all of the mentioned features and services.

However any application, software or any type of devices has limitations, in our project the most limitation which is considered as future limitation that is firebase database because of its max connection that is limited to 50.

We may in the future try to overcome this problem by using other type of database that could achieve our purpose.

Also , In the Future we attend to add more filters on the events. Such as, address filter that allow users follow events in specific location.

Chapter 7: Conclusion and recommendations

In the twenty-first century and with the increasing of events and developments whether social, economic, political, scientific, technical and many other events related to human life. From this point comes the need and desire to organize these events, schedule them appropriately and announce them for all members of society, especially those interested in them.

The main objective of our project Evento is to create application that organize, manage and schedule events of all kinds for the users based on their chosen interested types. In addition this software enable any part, company , individual user, formal or informal side to create and announce events with all details from the start of it until it finished without need to manager or responsible one which saves time especially if it is urgent or sudden event.

It provides also a notification system that allow users to know when a new event is created and also when any other user follow them. Besides payment features that enable users to register in the paid events.

It supports IOS, Android and Windows phones .As the future work we recommend to replace the firebase database because of its main limitation that is 50 max connections which will not fit in the future with large number of Evento users.

We hope from users who will try Evento to find it easy and user friendly as a start up application, and we will welcome any feedback or missing problem to solve that the users can send to us by Contact us feature.

References :

- [1] Eventus, [online]. Available : <https://www.eventus.io/> .
- [2] Firebase [online] . Available : <https://firebase.google.com/> .
- [3] Ionic framework [online] . Available : <https://ionicframework.com/> .
- [4] Angular [online] . Available : <https://angular.io/> .
- [5] Eventtus [online]. Available : <https://eventtus.com/> .