**Functional and Non-functional Requirement**

1. Initialization
   * 1. The Login page shall display a square-shaped Avatar at the top of the page.
        1. The square-shaped Avatar shall locate at 6dp padding below the top of the screen, and 12dp padding to the left and right of the screen.
        2. The square-shaped Avatar shall have a width and length of 12dp.
     2. There shall be a line of string “username” following the Avatar and a username input box below the string.
        1. The string “username” shall locate 6dp below the Avatar.
        2. The font size of the alphabets of the string “username” shall be 12 pt.
        3. The font style of the alphabets of the string “username” shall be Calibri.
        4. An input box shall be located with 8dp padding below the string “username”.
        5. The input box shall have a width of 24dp.
        6. The user shall be able to enter username into the username input boxes.
     3. There shall be a line of string “password” following the username input box and a password input box below the username input box.
        1. The string “password” shall locate 6dp below the username input box.
        2. The font size of the alphabets of the string “password” shall be 12 pt.
        3. The font style of the alphabets of the string “password” shall be Calibri.
        4. An input box shall be located with 8dp padding below the string “password”.
        5. The input box shall have a width of 24dp.
        6. The user shall be able to enter password into the password input boxes.
   1. User registration process
      1. The user shall be directed to the “User Registration" page when pressed the “Sign up” bottom in the log-in page.
      2. The following information shall be collected: username, email address, and password.
      3. The completeness of the information shall be checked to ensure an account to be created correctly:
         1. Username shall be a string of lowercase English letters.
         2. The string shall only contain English letters with length between six to eighteen.
            1. If the entered username does not match the format requirements mentioned above, the system shall display a warning message at the bottom of the input box.
            2. The content of the warning message: “Username Format Incorrect, Username must only contain lowercase English letters with length between six to eight”.
         3. The database shall check username for duplication.
            1. There shall be a line of warning message at the bottom of the input box if duplicated username entered.
            2. The content of the warning message: “Username Already Exists, Please Enter Another Username”.
         4. The database shall check email address for duplication.
            1. There shall be a line of warning message at the bottom of the input box if duplicated email address entered.
            2. The content of the warning message: “Email Already Exists, Please Enter Another Email”
         5. The password shall contain as least one lowercase letter, one uppercase letter, one special character and with length between six to eighteen characters.
            1. If the entered password does not match the format requirements mentioned above, the system shall display a warning message at the bottom of the input box.
            2. The content of the warning: “Username Already Exists, Please Enter Another Username”
   2. UI description of user registration page
      1. The user registration page shall display three input boxes, in which the username input box is located at the top, following by email input box, and password input box.
      2. An input box shall be located with 8dp padding below the name of the required information.
      3. The input box shall have a width of 24dp.
      4. The user shall be able to enter username into the input boxes.
      5. The user shall be able to enter email into the input boxes.
      6. The user shall be able to enter password into the input boxes. (reformat)
      7. The user shall confirm the password after typing in the password.
      8. The system shall check for the correctness of all the user input information.
      9. The user shall submit the input by pressing the “Submit” button located at the bottom-center of the screen.
      10. The system shall assign a default Avatar to the user from a list of Avatars from the database upon successful registration.
2. User registration
   1. Log-in
      1. If the user has not logged to the system, the system shall direct the user to the log-in page.
      2. The Login page shall display a square-shaped Avatar at the top of the page.
      3. The square-shaped Avatar shall locate at 6dp padding below the top of the screen, and 12dp padding to the left and right of the screen.
      4. The square-shaped Avatar shall have a width and length of 12dp.
      5. There shall be a line of string “username” following the Avatar and a username input box below the string.
      6. The string “username” shall locate 6dp below the Avatar.
      7. The font size of the alphabets of the string “username” shall be 12 pt.
      8. The font style of the alphabets of the string “username” shall be Calibri.
      9. An input box shall be located with 8dp padding below the string “username”.
      10. The input box shall have a width of 24dp.
      11. The user shall be able to enter username into the username input boxes.
      12. There shall be a line of string “password” following the username input box and a password input box below the username input box.
      13. The string “password” shall locate 6dp below the username input box.
      14. The font size of the alphabets of the string “password” shall be 12 pt.
      15. The font style of the alphabets of the string “password” shall be Calibri.
      16. An input box shall be located with 8dp padding below the string “password”.
      17. The input box shall have a width of 24dp.
      18. The user shall be able to enter password into the password input boxes.
      19. The user shall be able to enter his/her username and password in the log-in page and press “Log in” button to login to the application.
      20. The system shall validate the username and password.
          1. If username does not exist
             1. There shall be a line of warning message at the bottom of the input box.
             2. The content of the warning message: “Username or/and Password is/are incorrect”
          2. If username does not match with password
             1. There shall be a line of warning message at the bottom of the input box.
             2. The content of the warning message: “Username or/and Password is/are incorrect”
          3. The system shall direct the user to registration page after pressing the “Sign up” bottom located at the lower part of the screen next to “Log in” bottom.
   2. UI description of log-in page
      1. The user shall be directed to “Discover” section once the user logged in.
      2. Each section of the application: Discover, Event, and Me, shall be accessed by clicking the corresponding button on the navigation bar
      3. The navigation bar is located at the bottom of the screen.
      4. (reformat)
3. Discover
   1. Activity
   2. (get back swipe)
   3. The use shall be access to Activity page after successfully login.
      1. When the user enters the “Discover” section by pressing the button on the navigation bar, the user shall be directed to the “Activity” page.
      2. The application shall display three main tiles on the “Activity” page: “Activity”, “Recommend Venue” and “Recommend Eateries”.
         1. The “Activity” tile shall be the main component of the page and shall occupies 60% of the screen from the top.
         2. There shall be two tiles at the lower part of the screen: “Recommend Venue” tile and “Recommend Eateries” tile.
      3. The “Activity” tile shall recommend to the user on what activity to be engaged.
         1. The database shall provide a list of activities to recommend to the user.
         2. The “Activity” tile shall display the name of the activity at the top of the screen.
         3. The “Activity” tile displays the description of the activity at the bottom.
         4. The “Activity” tile displays the picture of the activity as the background.
         5. A list of activities shall be stored in the application’s database. The list of activities is as the following:

|  |  |
| --- | --- |
| Outdoor | Indoor |
| Jogging | Running (on treadmill) |
| Swimming | Yoga |
| Single tennis | Jump rope |
| Basketball | Cardio workout |
| Soccer |  |
| Walking |  |
| Cycling |  |

* + - 1. If there are multiple suitable sports activities, the application shall display information about one of the activities randomly chosen from the suitable list.
    1. The activity recommended shall be based on data from weather forecast, Ultraviolet Index and Pollutant Standard Index.
       1. The database from data.gov.sg shall provide the data for criteria
       2. The recommended activity shall be selected based on the following guideline:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Outdoor Temperature | Rain prediction | Ultraviolet Index | Pollutant Standard Index |
| Outdoor Activity | Temperature  < 35Cº | No rain in next 2 hours | UVI < 8 | PSI < 100 |
| Indoor Activity | Nil | Rain in  next 2 hours | Nil | Nil |

* 1. Recommend venue
     1. Upon pressing the “Recommend Venue” button in the “Discover” page, the system shall direct the user to the “Recommend Venue” page.
     2. In the recommend venue page, the application shall suggest a venue according to the activity recommended.
     3. The type of venues recommended should follow the following guideline:

|  |  |
| --- | --- |
| Venue | Activity |
| Gym | Running (On treadmill), Yoga, Jump Rope, Cardio Workout |
| Park | Jogging, Cycling, Walking |
| Sports field | Single Tennis, Basketball, Soccer |
| Swimming complex | Swimming |

* + 1. The facility/venue suggested to the user shall be the one that is the nearest to their current location.
  1. Recommend Eateries
     1. Upon pressing the “Recommend Eateries” button in the “Discover” page, the user shall access to the “Recommend Eateries” page.
     2. In the recommend eateries, the application shall display a map that marks the locations of healthier eateries around the user’s current location.
     3. The information of healthier eateries shall come from data.gov.sg.

1. Event
   1. Event
      1. When the user enters the “Event” section by pressing the “Event” icon in the bar, the user shall access to the “Event” page.
      2. The “Event” page shall display the most popular event with its name and picture at the top part.
         1. The user shall be able to view the details of the event by pressing the picture.
      3. The “Event” page shall display a filter located below the most popular event.
         1. The filter section shall contain six buttons, each representing a type of events.
            1. When the user clicks on one of the buttons in the filter section, the system shall direct the user to a new page consisting of events of the category accordingly.
         2. The user shall be able to press “>>>” button located at the bottom-right corner of the filer to view all the types.
            1. When “>>>” button is pressed, the user shall be able to access to a page that lists all filter buttons each linking to a different event type.
      4. The “Event” page shall have a scroll view consisting of rows of events presented to the user.
         1. Each event shall be presented in a rectangle-shaped view.
         2. Within the rectangle-shaped view, there shall be an image of the event on the left side.
         3. Within the rectangle-shaped view, there shall be text information displayed that includes name, time, location of the event on the right-hand side.
         4. The events shall be displayed in an order of popularity.(这句不会改)
         5. The popularity indicator of each event is equal to the number of ‘interested’ participants.
      5. The “Event” page shall have a “Create Event” button located at the bottom of the screen.
         1. When the user clicks on the “Create Event” button, the user shall access to a new page for creating the event.
   2. Create Event
      1. The page shall ask the user to input name, time, location, estimated budget, maximum participants, and estimated duration of the event.
      2. The user shall be able to click the “submit” button or “cancel button” at the bottom of the event creation page.
         1. If the user clicks on the “submit” button, the event shall be recorded and sent to application admin for approval.( 这句不会改)
         2. If the user clicks on the “cancel” button, the user shall be able to navigate back to the page he/she is viewing previously.
      3. When the admin has approved the event, other people in the event section shall be able to see that events.
   3. Event information
      1. When the user clicks on an event, the user shall access to a new “Event Information” page containing detailed information of the event.
         1. The detailed information shall include the name, time, location, estimated budget, maximum participants, and estimated duration of the event.
      2. Under the name and detailed information of the event, there shall be two buttons, “Interested” and “Going”.
         1. The user shall click on “Interested” button to indicate that he is interested in the event but may not be going.
         2. The “Interested” button shall be a white-color heart shape.
         3. Once the user has clicked the white-color heart shape, it shall change to red color.
         4. The user shall click on “Going” button to indicate that he will be going for this event.
         5. The “Going” button shall be a round button with a white-color tick.
         6. Once the user has clicked on the round button, the white-color tick shall become green.
      3. If the user clicked the “Going” button, the event’s available slots, which is equal to the estimated number of participants, shall decrement by one.
         1. If there’s no available slots for an event, the system shall not display the event.
2. Me
   1. Change personal particulars
      1. The user shall be able to choose or upload their photo as Avatar.
         1. If the user uploads a photo, he/she shall be able to use the photo.
         2. If the user does not want to upload a photo, he/she shall be able to choose an avatar from a list default avatar.
      2. The user shall be able to manipulate their basic personal information, namely name, contact and email address.
   2. My Events
      1. Under ME section, there shall be one bar reading “my events”.
         1. By clicking on the bar, the events created by the user shall be listed.
         2. The events shall be in the order of time with the earliest on top.
         3. By tapping on one of the listed events, the user shall be able to view the details of the event.
         4. The details of the event being displayed are name, time, location, estimated budget, number of participants signed up, maximum number of participants, and estimated duration of the event.
         5. The user shall be able to delete the events by tapping on the “delete” button at the bottom of the page.
   3. Interested & Going Event
      1. Under ME section, there shall be one bar reading “Interested & Going Event”.
         1. By tapping on the “Interested & Going Event” bar, the user shall enter a page where there will be a bar on top of the page with two section, “Interested” and “Going”.
         2. The default display after the user has entered this page shall be a list of events that he will be going to, ranked by time with the earliest on top.
         3. By swiping the screen left, the displayed events shall switch to a list of events that the user is interested in
         4. The events shall be in the order of time with the earliest on top.
         5. When the displayed events are a list of interested events, by swiping right on the screen, the displayed events shall change back to the listed of events that the user will be going to.
         6. By tapping on one of the listed events, the user shall be able to view the details of the events
         7. The details of the event being displayed are name, time, location, estimated budget, number of participants signed up, maximum number of participants, and estimated duration of the event.
      2. There shall be two buttons indicating “interested” and “going” in each of the event detail page.
      3. When the user has activated or deactivated the button, the event shall appear in or disappear from the “interested” event list or “going” event list accordingly.
   4. Logout
      1. The user shall be able to logout of the app
         1. There shall be a “Logout” button at the bottom of the section.
         2. Upon pressing on the “Logout” button, the user shall be able to return to login page.
3. Administration
   1. The administrator shall login the system with specific user name and password.
   2. The admin’s username shall be “Admin”
   3. The admin’s password shall be “BO55man”
   4. Upon authentication of administrator’s account, the admin shall enter a page with two buttons: “Approved Events” and “Events to be Approved”.
   5. By tapping on the “Approved Events” button, the admin shall see a list of events that has been approved and displayed on the users’ Event section
   6. The list of events shall be ranked by time with the latest on top.
   7. By tapping on one of the listed events, the admin shall be able to see the details of the event: name, time, location, estimated budget, number of participants signed up / maximum number of participants, and estimated duration of the event.
   8. At the bottom of the page, there shall be a button named “Delete”.
   9. By tapping on the “Delete” button, the admin shall be able to remove the event from the approved list of events.
   10. After one event is being deleted by the admin, it shall be removed and disappear from the users’ Event section and ME section.
   11. By tapping on the “Events to be Approved” button, the admin shall see a list of events that has yet to be approved, ranked by time with the latest on top.
   12. By tapping on one of the listed events, the admin shall be able to see the details of the event: name, time, location, estimated budget, maximum number of participants, and estimated duration of the event.
   13. At the bottom of the page, there shall be a button named “Approve”.
   14. By tapping on the “Approve” button, the event approved shall be added to the “Approved Events” list and appear in users’ Event section and ME section.