**Test Suite**

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| Test Suite | Test Case Identification Number | Test cases | Environment | Expected Result | Final Result |
| Test Suite 1 | T1 | For Student module, To check if the mobile application lets the user login using a username and password. |  | If user credentials are correct, it will navigate to QR scan page.  If user credentials are not correct, it will pop up a message to user saying username/password is incorrect. | If user credentials are correct, it will navigate to QR scan page.  If user credentials are not correct, it will pop up a message to user saying username/password is incorrect. |
|  | T2 | For Student module, To check if all communications with external systems is being be encrypted using a hash function. |  | Use hashing algorithm so that password is encrypted and is stored in database. | As we are using parse server, this automatically encrypts the password and is hidden in the database. |
|  | T3 | For Student module, To check if all data User Name and password combination will be stored into a database for future reference. |  | When user completed filling the signup form, this data is stored in the database. | When user completed filling the signup form, this data is stored in the database. |
|  | T4 | For Student module, To check if the mobile application lets the user scan the unique QR code displayed by the Instructor. |  | Student gives access to his/her camera and scans the QR code. If scanned, gives a popup message saying QR scanned successfully. | Student gives access to his/her camera and scans the QR code. If scanned, gives a popup message saying QR scanned successfully. |
|  | T5 | For Student module, To check if the application is being take him to a 'Register'' page. |  | As we use tab bar controller, user can easily navigate to the register page. | As we use tab bar controller, user can easily navigate to the register page. |
|  | T6 | For Student module, To check if the application is being identify the student and save further details based on unique student ID. |  | Checks the user login credentials and marks the attendance. | Checks the user login credentials and marks the attendance. |
|  | T7 | For Student module, To check if the application is being ask the student to scan the QR code again. |  | If QR scan fails, gets a popup message saying that scan is failed, and user can scan again | If QR scan fails, gets a popup message saying that scan is failed, and user can scan again |
|  | T8 | For Student module, To check if the mobile application lets the student scan the QR code for only one time a class. |  | QR can be scanned only one time per user in that class. | QR can be scanned only one time per user in that class. |
|  | T9 | For Student module, To check if the mobile application sends a proper feedback to the user saying 'QR code scanned and attendance recorded'. |  | Gets a popup message saying that attendance is marked when QR is scanned. | Gets a popup message saying that attendance is marked when QR is scanned. |
|  | T10 | For Student module, To check if the mobile application lets the student view the courses he/she has registered to in the department. |  | User can navigate to the attendance page to view his attendance for the courses. | User can navigate to the attendance page to view his attendance for the courses. |
|  | T11 | For student module, To check if the mobile application lets the student logout of the application. |  | Student should able to click the logout button once he clicks on logout button. | Didn’t keep logout button as the user swipes up once he completed his work with the application. |
| Test Suite 2 | T12 | For Instructor module, To check if the web application lets the Instructor login to the system with given user id and password. |  | If user credentials are correct, it will navigate to home page.  If user credentials are not correct, it gives a feedback message to user saying username/password is incorrect. | If user credentials are correct, it will navigate to home page.  If user credentials are not correct, it gives a feedback message to user saying username/password is incorrect. |
| T13 | For Instructor module, To check if all communications with external systems is being be encrypted using a hash function. |  | Use hashing algorithm so that password is encrypted and is stored in database. | As we are using parse server, this automatically encrypts the password and is hidden in the database. |
| T14 | For Instructor module, To check if all data User Name and password combination will be stored into a database for future reference. |  | When user completed filling the signup form, this data is stored in the database. | When user completed filling the signup form, this data is stored in the database. |
| T15 | For Instructor module, To check if the web application lets the Instructor to add courses across departments. |  | User clicks on the add course button, fill the form, and submit to get displayed in home page and to the students in the mobile application. | User clicks on the add course button, fill the form, and submit to get displayed in home page and to the students in the mobile application. |
| T16 | For Instructor module, To check if the web application lets the Instructor to add multiple sections for a course. |  | User can add multiple sections for a single course by adding different CRN numbers for different sections. | User can add multiple sections for a single course by adding different CRN numbers for different sections. |
| T17 | For Instructor module, To check if the web application lets the Instructor generate a unique QR code when the instructor clicks on 'Generate QR button' on the Instructor view. |  | Instructor generates QR code by clicking the generate button. This QR is opened in a new tab. | Instructor generates QR code by clicking the generate button. This QR is opened in a new tab. |
| T18 | For Instructor module, To check if the web application lets the Instructor display that unique QR code to the students in the class. |  | QR code is displayed in a new tab for a bigger view. | QR code is displayed in a new tab for a bigger view. |
| T19 | For Instructor module, To check if the web application lets the Instructor choose the number of QR’s to be generated by the application in the 'generate QR' page. |  | Can able to generate any number of QR’s for a class but should be counted as one class. | This function is partially implemented as the instructor generates the second QR, it will treat as two different classes. |
| T20 | For Instructor module, To check if the web application lets the Instructor modify student attendance records. |  | Instructor clicks on the change button in the student tab so that he can modify attendance for that student. | Instructor clicks on the change button in the student tab so that he can modify attendance for that student. |
| T21 | For Instructor module, To check if the web application lets the Instructor deletes student attendance records. |  | Instructor should delete student record if student unfortunately registers in his class. | Instructor should delete student record if student unfortunately registers in his class. |
| T22 | For Instructor module, To check if the web application lets the Instructor analyse student attendance records. |  | As student records are totally shown in student page, he can able to analyse the attendance. | As student records are totally shown in student page, he can able to analyse the attendance. |
| T23 | For Instructor module, To check if the web application lets the Instructor view the number of students in each course. |  | Instructor can view all the students in a section. | Instructor can view all the students in a section. |
| T24 | For Instructor module, To check if the web application provide appropriate feedback to the Instructor after modifying any student records. |  | Instructor can view the feedback once he added/deleted the student. He can also view feedbacks for adding or deleting the courses. | Instructor can view the feedback once he added/deleted the student. He can also view feedbacks for adding or deleting the courses. |