COLLEGE CONNECT

*(College Apps Bundle)*

****

# Cluster Innovation Centre

# University of Delhi

**AMIT | ASHUTOSH | SACHIN**

**SHUBHAM | TUSHAR**

AUG-NOV 2021

Semester Project submitted for the paper of:

*Software Project Management*

# TEST CASES

The various test cases for College Connect are :

* Module : User Authentication

Design & Execution Date : 07/09/2021 - 17/09/2021

| Test Case ID. | 1 |
| --- | --- |
| Priority | High |
| Test Title | Checking User Login status |
| Test Description | Checks whether a user has previously login or not |
| Dependency | Internet Connectivity & Connection to the Database |
| Steps | Opening the app automatically checks whether a user snapshot exista in the database and internal storage or not |
| Expected Result | If user is logged in, he will be taken to home screen, otherwise login screen |
| Actual Result | App crashed |
| Estimated Time | 700 ms at least, depends on internet connectivity |
| Status | Fail |
| Notes | App was not allowed to read / write storage. Therefore, any read operation failed. Need to ask permission |

| Test Case ID. | 2 |
| --- | --- |
| Priority | High |
| Test Title | Checking User Login status |
| Test Description | Checks whether a user has previously login or not |
| Dependency | Internet Connectivity & Connection to the Database |
| Steps | Opening the app automatically checks whether a user snapshot exista in the database and internal storage or not |
| Expected Result | If user is logged in, he will be taken to home screen, otherwise login screen |
| Actual Result | App taking longer than expected |
| Estimated Time | 700 ms at least, depends on internet connectivity |
| Status | Fail |
| Notes | Internet connectivity issues, pop a dialog to user that his internet is weak |

| Test Case ID. | 3 |
| --- | --- |
| Priority | High |
| Test Title | Checking User Login status |
| Test Description | Checks whether a user has previously login or not |
| Dependency | Internet Connectivity & Connection to the Database |
| Steps | Opening the app automatically checks whether a user snapshot exista in the database and internal storage or not |
| Expected Result | If user is logged in, he will be taken to home screen, otherwise login screen |
| Actual Result | User is directed to respective destinations according to his login status |
| Estimated Time | 700 ms at least, depends on internet connectivity |
| Status | Pass |
| Notes |  |

| Test Case ID. | 4 |
| --- | --- |
| Priority | High |
| Test Title | Registration Account |
| Test Description | This test case tests the registration process |
| Dependency | Internet Connectivity & Connection to the Database |
| Steps | "Any entity can only be registered by admin. Admin opens the app. Under Register tab, admin clicks on the entity he/she want to register. Fill out all the mandatory fields.After that an email / password is generated for that user and now that user is registered and if the information matches the required format the user can login into his account.  " |
| Expected Result | User is Registered |
| Actual Result | App crashes |
| Estimated Time | At Least 40 seconds, depends on admin typing speed and internet connectivity |
| Status | Fail |
| Notes | com.google.firebase.auth.FirebaseAuthException: This operation is not allowed. You must enable this service in the console. ERROR\_OPERATION\_NOT\_ALLOWED. Enable Firebase Authentication |

| Test Case ID. | 5 |
| --- | --- |
| Priority | High |
| Test Title | Registration Account |
| Test Description | This test case tests the registration process |
| Dependency | Internet Connectivity & Connection to the Database |
| Steps | "Any entity can only be registered by admin. Admin opens the app. Under the Register tab, admin clicks on the entity he/she wants to register. Fill out all the mandatory fields.After that an email / password is generated for that user and now that user is registered and if the information matches the required format the user can login into his account.  " |
| Expected Result | User is Registered |
| Actual Result | App crashes |
| Estimated Time | At Least 40 seconds, depends on admin typing speed and internet connectivity |
| Status | Fail |
| Notes | "invalid-oauth-provider": "EmailAuthProvider is not supported for this operation. This operation only supports OAuth providers.", (Enable Email/Password Authentication |

| Test Case ID. | 6 |
| --- | --- |
| Priority | High |
| Test Title | Registration Account |
| Test Description | This test case tests the registration process |
| Dependency | Internet Connectivity & Connection to the Database |
| Steps | "Any entity can only be registered by admin. Admin opens the app. Under the Register tab, admin clicks on the entity he/she want to register. Fill out all the mandatory fields.After that an email / password is generated for that user and now that user is registered and if the information matches the required format the user can login into his account.  " |
| Expected Result | User is Registered |
| Actual Result | Nothing happens as if app isn't responding |
| Estimated Time | At Least 40 seconds, depends on admin typing speed and internet connectivity |
| Status | Fail |
| Notes | User email not in correct format. Therefore, no email / password combination is generated. Show error dialog |

| Test Case ID. | 7 |
| --- | --- |
| Priority | High |
| Test Title | Registration Account |
| Test Description | This test case tests the registration process |
| Dependency | Internet Connectivity & Connection to the Database |
| Steps | "Any entity can only be registered by admin. Admin opens the app. Under the Register tab, admin clicks on the entity he/she wants to register. Fill out all the mandatory fields.After that an email / password is generated for that user and now that user is registered and if the information matches the required format the user can login into his account.  " |
| Expected Result | User is Registered |
| Actual Result | Nothing happens as if app isn't responding |
| Estimated Time | At Least 40 seconds, depends on admin typing speed and internet connectivity |
| Status | Fail |
| Notes | User password too short. Therefore, not generated. Show error dialog |

| Test Case ID. | 8 |
| --- | --- |
| Priority | High |
| Test Title | Registration Account |
| Test Description | This test case tests the registration process |
| Dependency | Internet Connectivity & Connection to the Database |
| Steps | "Any entity can only be registered by admin. Admin opens the app. Under the Register tab, admin clicks on the entity he/she wants to register. Fill out all the mandatory fields.After that an email / password is generated for that user and now that user is registered and if the information matches the required format the user can login into his account." |
| Expected Result | User is Registered |
| Actual Result | Nothing happens as if app isn't responding |
| Estimated Time | At Least 40 seconds, depends on admin typing speed and internet connectivity |
| Status | Fail |
| Notes | No Internet connection. Loading doesn't disappear. Make a service that always checks for connection and displays popup accordingly. |

| Test Case ID. | 9 |
| --- | --- |
| Priority | High |
| Test Title | Registration Account |
| Test Description | This test case tests the registration process |
| Dependency | Internet Connectivity & Connection to the Database |
| Steps | "Any entity can only be registered by admin. Admin opens the app. Under the Register tab, admin clicks on the entity he/she wants to register. Fill out all the mandatory fields.After that an email / password is generated for that user and now that user is registered and if the information matches the required format the user can login into his account." |
| Expected Result | User is Registered |
| Actual Result | Nothing happens as if app isn't responding |
| Estimated Time | At Least 40 seconds, depends on admin typing speed and internet connectivity |
| Status | Fail |
| Notes | An account already exists with that email. Show popup to admin |

| Test Case ID. | 10 |
| --- | --- |
| Priority | High |
| Test Title | Registration Account |
| Test Description | This test case tests the registration process |
| Dependency | Internet Connectivity & Connection to the Database |
| Steps | "Any entity can only be registered by admin. Admin opens the app. Under the Register tab, admin clicks on the entity he/she wants to register. Fill out all the mandatory fields.After that an email / password is generated for that user and now that user is registered and if the information matches the required format the user can login into his account.  " |
| Expected Result | User is Registered |
| Actual Result | User is registered |
| Estimated Time | At Least 40 seconds, depends on admin typing speed and internet connectivity |
| Status | Pass |
| Notes | An account already exists with that email. Show popup to admin |

| Test Case ID. | 11 |
| --- | --- |
| Priority | High |
| Test Title | Login Account |
| Test Description | This test case tests the login process |
| Dependency | Internet Connectivity & Connection to the Database & account exists or not |
| Steps | User opens the app and if the user has not logged in before then the user is taken to the login screen. Upon successful authentication, he/she is taken home. |
| Expected Result | Successful login if email and password is correct |
| Actual Result | App crashes. Null pointer exception |
| Estimated Time | 10 seconds depending on user's internet and speed |
| Status | Fail |
| Notes | No account exists. Display popup |

| Test Case ID. | 12 |
| --- | --- |
| Priority | High |
| Test Title | Login Account |
| Test Description | This test case tests the login process |
| Dependency | Internet Connectivity & Connection to the Database & account exists or not |
| Steps | User opens the app and if the user has not logged in before then the user is taken to the login screen. Upon successful authentication, he/she is taken home. |
| Expected Result | Successful login if email and password is correct |
| Actual Result | Nothing happens. |
| Estimated Time | 10 seconds depending on user's internet and speed |
| Status | Fail |
| Notes | Email not in correct format. Check for validation when calling onClickListener() |

| Test Case ID. | 13 |
| --- | --- |
| Priority | High |
| Test Title | Login Account |
| Test Description | This test case tests the login process |
| Dependency | Internet Connectivity & Connection to the Database & account exists or not |
| Steps | User opens the app and if the user has not logged in before then the user is taken to the login screen. Upon successful authentication, he/she is taken home. |
| Expected Result | Successful login if email and password is correct |
| Actual Result | Nothing happens |
| Estimated Time | 10 seconds depending on user's internet and speed |
| Status | Fail |
| Notes | Password is incorrect. Show popup to user |

| Test Case ID. | 14 |
| --- | --- |
| Priority | High |
| Test Title | Login Account |
| Test Description | This test case tests the login process |
| Dependency | Internet Connectivity & Connection to the Database & account exists or not |
| Steps | User opens the app and if the user has not logged in before then the user is taken to the login screen. Upon successful authentication, he/she is taken home. |
| Expected Result | Successful login if email and password is correct |
| Actual Result | User logged in and taken to home |
| Estimated Time | 10 seconds depending on user's internet and speed |
| Status | Pass |
| Notes | Password is incorrect. Show popup to user |

* Module : Course Management

Design & Execution Date : 20/09/2021 - 22/09/2021

| Test Case ID. | 15 |
| --- | --- |
| Priority | Medium |
| Test Title | Adding Courses |
| Test Description | This test case checks whether a course is added or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on the course management card view. He/she then clicks on the "+" button on the upper right corner of the toolbar. Admin is presented with a bottom sheet dialog to fill all the relevant details. Upon clicking Done, the course is added |
| Expected Result | Course is created |
| Actual Result | Successfully Added |
| Estimated Time | 30 seconds, depends on admin |
| Status | Pass |
| Notes | Password is incorrect. Show popup to user |

| Test Case ID. | 16 |
| --- | --- |
| Priority | Medium |
| Test Title | Viewing Courses |
| Test Description | This test course checks if a course can be viewed upon successful creation |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on course management card view and the list of courses is displayed |
| Expected Result | Courses List is retrieved |
| Actual Result | Shimmer Layout not going |
| Estimated Time | 2 seconds, depends on internet |
| Status | Fail |
| Notes | Set visibility of shimmer layout to false once the data is retrieved |

| Test Case ID. | 17 |
| --- | --- |
| Priority | Medium |
| Test Title | Viewing Courses |
| Test Description | This test course checks if a course can be viewed upon successful creation |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on course management card view and the list of courses is displayed |
| Expected Result | Courses List is retrieved |
| Actual Result | Courses are viewed easily, but when adding a course, the view doesn't get updated right away. |
| Estimated Time | 2 seconds, depends on internet |
| Status | Fail |
| Notes | Update the recycler view |

| Test Case ID. | 18 |
| --- | --- |
| Priority | Medium |
| Test Title | Viewing Courses |
| Test Description | This test course checks if a course can be viewed upon successful creation |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on course management card view and the list of courses is displayed |
| Expected Result | Courses List is retrieved |
| Actual Result | Courses List retrieved |
| Estimated Time | 2 seconds, depends on internet |
| Status | Pass |
| Notes | Update the recycler view |

* Module : Batches Management

Design & Execution Date : 24/09/2021 - 25/09/2021

| Test Case ID. | 19 |
| --- | --- |
| Priority | Medium |
| Test Title | Adding Batches |
| Test Description | This test case checks whether a course is added or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on the course management card view. Then the admin clicks on the course in which he/she wishes to add a batch. He/she then clicks on the "+" button on the upper right corner of the toolbar. Admin is presented with a bottom sheet dialog to fill all the relevant details. Upon clicking Done, the batch is added |
| Expected Result | Batch is added |
| Actual Result | Batch not created |
| Estimated Time | 30 seconds, depends on admin |
| Status | Fail |
| Notes | Firebase Path is incorrect. Make an array list of batch models and save it in courseModel. |

| Test Case ID. | 20 |
| --- | --- |
| Priority | Medium |
| Test Title | Adding Batches |
| Test Description | This test case checks whether a course is added or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on the course management card view. Then the admin clicks on the course in which he/she wishes to add a batch. He/she then clicks on the "+" button on the upper right corner of the toolbar. Admin is presented with a bottom sheet dialog to fill all the relevant details. Upon clicking Done, the batch is added |
| Expected Result | Batch is added |
| Actual Result | Batch not created |
| Estimated Time | 30 seconds, depends on admin |
| Status | Fail |
| Notes | Firebase Path is incorrect. Make an array list of batch models and save it in courseModel. |

| Test Case ID. | 21 |
| --- | --- |
| Priority | Medium |
| Test Title | Adding Batches |
| Test Description | This test case checks whether a course is added or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on the course management card view. Then the admin clicks on the course in which he/she wishes to add a batch. He/she then clicks on "+" button on the upper right corner of the toolbar. Admin is presented with a bottom sheet dialog to fill all the relevant details. Upon clicking Done, the batch is added |
| Expected Result | Batch is added |
| Actual Result | App Crashes |
| Estimated Time | 30 seconds, depends on admin |
| Status | Fail |
| Notes | If there is not a single batch in the course then first initialize a empty Array List and then add batches |

| Test Case ID. | 22 |
| --- | --- |
| Priority | Medium |
| Test Title | Adding Batches |
| Test Description | This test case checks whether a course is added or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on the course management card view. Then the admin clicks on the course in which he/she wishes to add a batch. He/she then clicks on the "+" button on the upper right corner of the toolbar. Admin is presented with a bottom sheet dialog to fill all the relevant details. Upon clicking Done, the batch is added |
| Expected Result | Batch is added |
| Actual Result | Previous Batches are deleted |
| Estimated Time | 30 seconds, depends on admin |
| Status | Fail |
| Notes | If there exists batches in course then first get those batches in an Array List and then add a new batch |

| Test Case ID. | 23 |
| --- | --- |
| Priority | Medium |
| Test Title | Adding Batches |
| Test Description | This test case checks whether a course is added or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on the course management card view. Then the admin clicks on the course in which he/she wishes to add a batch. He/she then clicks on the "+" button on the upper right corner of the toolbar. Admin is presented with a bottom sheet dialog to fill all the relevant details. Upon clicking Done, the batch is added |
| Expected Result | Batch is added |
| Actual Result | Batch created |
| Estimated Time | 30 seconds, depends on admin |
| Status | Pass |
| Notes |  |

| Test Case ID. | 24 |
| --- | --- |
| Priority | Medium |
| Test Title | Viewing Batches |
| Test Description | This test course checks if a batch can be viewed upon successful creation |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on the course management card view and the list of courses is displayed. Then he/she selects a course and then the list of batches is displayed |
| Expected Result | Batches List is retrieved |
| Actual Result | Batches Retrieved |
| Estimated Time | 2 seconds, depends on internet |
| Status | Pass |
| Notes |  |

* Module : Student Management

Design & Execution Date : 27/09/2021 - 30/09/2021

| Test Case ID. | 25 |
| --- | --- |
| Priority | Medium |
| Test Title | Adding Students |
| Test Description | This test case checks whether a course is added or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on the course management card view. Then the admin clicks on the course in which he/she wishes to add a batch. He/she then clicks on the batch in which they want to add a student. He/she then clicks on the "+" button on the upper right corner of the toolbar. Admin is presented with a bottom sheet dialog to fill all the relevant details. Upon clicking Done, the student is added |
| Expected Result | Student is added |
| Actual Result | Loading dialog doesn't disappear |
| Estimated Time | 2 min, depends on the user |
| Status | Fail |
| Notes | Email already exists, check for validations |

| Test Case ID. | 26 |
| --- | --- |
| Priority | Medium |
| Test Title | Adding Students |
| Test Description | This test case checks whether a course is added or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on the course management card view. Then the admin clicks on the course in which he/she wishes to add a batch. He/she then clicks on the batch in which they want to add a student. He/she then clicks on the "+" button on the upper right corner of the toolbar. Admin is presented with a bottom sheet dialog to fill all the relevant details. Upon clicking Done, the student is added |
| Expected Result | Student is added |
| Actual Result | Student not added |
| Estimated Time | 2 min, depends on the user |
| Status | Fail |
| Notes | Roll no. already exists. Show error dialog. |

| Test Case ID. | 27 |
| --- | --- |
| Priority | Medium |
| Test Title | Adding Students |
| Test Description | This test case checks whether a course is added or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on the course management card view. Then the admin clicks on the course in which he/she wishes to add a batch. He/she then clicks on the batch in which they want to add a student. He/she then clicks on "+" button on the upper right corner of the toolbar. Admin is presented with a bottom sheet dialog to fill all the relevant details. Upon clicking Done, the student is added |
| Expected Result | Student is added |
| Actual Result | Students overridden |
| Estimated Time | 2 min, depends on the user |
| Status | Fail |
| Notes | Check just like batches if a list of students exists or not. If it exists. then retrieve and then add a student in that list, otherwise initialise an empty array list. |

| Test Case ID. | 28 |
| --- | --- |
| Priority | Medium |
| Test Title | Adding Students |
| Test Description | This test case checks whether a student is added or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on the course management card view. Then the admin clicks on the course in which he/she wishes to add a batch. He/she then clicks on the batch in which they want to add a student. He/she then clicks on "+" button on the upper right corner of the toolbar. Admin is presented with a bottom sheet dialog to fill all the relevant details. Upon clicking Done, the student is added |
| Expected Result | Student is added |
| Actual Result | Student created |
| Estimated Time | 2 min, depends on the user |
| Status | Pass |
| Notes | - |

| Test Case ID. | 29 |
| --- | --- |
| Priority | Medium |
| Test Title | Viewing Students |
| Test Description | This test course checks if a student can be viewed upon successful creation |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the app and clicks on the course management card view and the list of courses is displayed. Then he/she selects a course and then the list of batches is displayed. Upon clicking a batch, a list of students is displayed |
| Expected Result | Students List is retrieved |
| Actual Result | Students Retrieved |
| Estimated Time | 2 seconds, depends on internet |
| Status | Pass |
| Notes |  |

| Test Case ID. | 30 |
| --- | --- |
| Priority | Low |
| Test Title | Operations on Students |
| Test Description | This test case checks if a student can be called via the phone's menu menu |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the students list and then select a student and in popup menu, he/she clicks on call |
| Expected Result | Call made successfully |
| Actual Result | App crashes |
| Estimated Time | 1 second |
| Status | Fail |
| Notes | Ask for phone's permission in Android Manifest file |

| Test Case ID. | 31 |
| --- | --- |
| Priority | Low |
| Test Title | Operations on Students |
| Test Description | This test case checks if a student can be called via the phone's menu menu |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the students list and then select a student and in popup menu, he/she clicks on call |
| Expected Result | Call made successfully |
| Actual Result | Number empty |
| Estimated Time | 1 second |
| Status | Fail |
| Notes | Pass the phone string in the calling intent |

| Test Case ID. | 32 |
| --- | --- |
| Priority | Low |
| Test Title | Operations on Students |
| Test Description | This test case checks if a student can be called via the phone's menu menu |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the students list and then select a student and in popup menu, he/she clicks on call |
| Expected Result | Call made successfully |
| Actual Result | Call made |
| Estimated Time | 1 second |
| Status | Pass |
| Notes |  |

| Test Case ID. | 33 |
| --- | --- |
| Priority | Low |
| Test Title | Operations on Students |
| Test Description | This test case checks if a student can be made a whatsapp message |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the students list and then select a student and in popup menu, he/she clicks on whatsapp |
| Expected Result | Whatsapp opened successfully |
| Actual Result | App crashes |
| Estimated Time | 1 second |
| Status | Fail |
| Notes | Whatsapp intent is wrong. Make sure the correct package is called |

| Test Case ID. | 34 |
| --- | --- |
| Priority | Low |
| Test Title | Operations on Students |
| Test Description | This test case checks if a student can be called via the phone's menu menu |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the students list and then select a student and in popup menu, he/she clicks on whatsapp |
| Expected Result | Whatsapp opened successfully |
| Actual Result | Nothing happens |
| Estimated Time | 1 second |
| Status | Fail |
| Notes | Intent not called properly |

| Test Case ID. | 35 |
| --- | --- |
| Priority | Low |
| Test Title | Operations on Students |
| Test Description | This test case checks if a student can be called via the phone's menu menu |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the students list and then select a student and in popup menu, he/she clicks on whatsapp |
| Expected Result | Whatsapp opened successfully |
| Actual Result | Whatsapp home is opened instead of student |
| Estimated Time | 1 second |
| Status | Fail |
| Notes | Pass the parameters such as phone no. to the intent |

| Test Case ID. | 36 |
| --- | --- |
| Priority | Low |
| Test Title | Operations on Students |
| Test Description | This test case checks if a student can be called via the phone's menu menu |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the students list and then select a student and in popup menu, he/she clicks on whatsapp |
| Expected Result | Whatsapp opened successfully |
| Actual Result | Success |
| Estimated Time | 1 second |
| Status | Pass |
| Notes |  |

| Test Case ID. | 37 |
| --- | --- |
| Priority | Medium |
| Test Title | Operations on Students |
| Test Description | This test case checks whether a student can be deleted or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the students list and then select a student and in popup menu, he/she clicks on delete |
| Expected Result | Student deleted |
| Actual Result | Another student is deleted instead of desired one |
| Estimated Time | 500ms |
| Status | Fail |
| Notes | Index the data properly |

| Test Case ID. | 38 |
| --- | --- |
| Priority | Medium |
| Test Title | Operations on Students |
| Test Description | This test case checks whether a student can be deleted or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the students list and then select a student and in popup menu, he/she clicks on delete |
| Expected Result | Student deleted |
| Actual Result | Index out of Bound Error |
| Estimated Time | 500ms |
| Status | Fail |
| Notes | When the data is deleted, make sure you update it accordingly. In this case only one student is created and was deleted and then when updating UI, index 0 was not found and hence the app crashed. |

| Test Case ID. | 39 |
| --- | --- |
| Priority | Medium |
| Test Title | Operations on Students |
| Test Description | This test case checks whether a student can be deleted or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the students list and then select a student and in popup menu, he/she clicks on delete |
| Expected Result | Student deleted |
| Actual Result | App crashes |
| Estimated Time | 500ms |
| Status | Fail |
| Notes | Path is wrong. Don't try to go down the student path. Go to the course and then the selected batch and then to the selected student. Batches and Students list are array lists. So, access them and then update the course path |

| Test Case ID. | 40 |
| --- | --- |
| Priority | Medium |
| Test Title | Operations on Students |
| Test Description | This test case checks whether a student can be edited or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the students list and then select a student and in popup menu, he/she clicks on edit |
| Expected Result | Student edited |
| Actual Result | App doesn't update its view |
| Estimated Time | Depends on admin |
| Status | Fail |
| Notes | Update the recycler view |

| Test Case ID. | 41 |
| --- | --- |
| Priority | Medium |
| Test Title | Operations on Students |
| Test Description | This test case checks whether a student can be edited or not |
| Dependency | Connection to Firebase Realtime Database |
| Steps | Admin opens the students list and then select a student and in popup menu, he/she clicks on edit |
| Expected Result | Student edited |
| Actual Result | Successfully edited |
| Estimated Time | Depends on admin |
| Status | Pass |
| Notes |  |

* Module : Teachers Management

Design & Execution Date : 01/10//2021 - 02/10/2021

| Test Case ID. | 42 |
| --- | --- |
| Priority | High |
| Test Title | Adding Teachers |
| Test Description | This test case checks whether teachers can be added or not |
| Dependency | Connection to Realtime Database and internet |
| Steps | Admin opens the app and clicks on Teachers card view and then on "+" button on top right corner of toolbar |
| Expected Result | Teacher Added |
| Actual Result | Success |
| Estimated Time | 1 min, depends on admin |
| Status | Pass |
| Notes |  |

| Test Case ID. | 43 |
| --- | --- |
| Priority | High |
| Test Title | Viewing Teachers |
| Test Description | This test case checks whether teacher list can be viewed or not |
| Dependency | Connection to Realtime Database and internet |
| Steps | Admin opens the app and clicks on Teachers card view |
| Expected Result | Teacher List retrieved |
| Actual Result | Success |
| Estimated Time | 1 second |
| Status | Pass |
| Notes |  |

* Module : Course Structures Management

Design & Execution Date : 04/10/2021

| Test Case ID. | 44 |
| --- | --- |
| Priority | High |
| Test Title | Creating Course Structures |
| Test Description | This test case checks whether a course structure is able to be created successfully or not |
| Dependency | Connection to Realtime Database and internet |
| Steps | Admin opens the app and clicks on Course Management and then clicks on the Course Management button in a course cardview which opens up Course Structure Fragment. Admin then clicks on the "+" button to create it. |
| Expected Result | Course Structure Added |
| Actual Result | App Crashed |
| Estimated Time | 20 seconds, depends on the admin |
| Status | Fail |
| Notes | If there is not a single structure in the course then first initialize a empty Array List and then add structures |

| Test Case ID. | 45 |
| --- | --- |
| Priority | High |
| Test Title | Creating Course Structures |
| Test Description | This test case checks whether a course structure is able to be created successfully or not |
| Dependency | Connection to Realtime Database and internet |
| Steps | Admin opens the app and clicks on Course Management and then clicks on the Course Management button in a course cardview which opens up Course Structure Fragment. Admin then clicks on the "+" button to create it. |
| Expected Result | Course Structure Added |
| Actual Result | Added Successfully |
| Estimated Time | 20 seconds, depends on the admin |
| Status | Pass |
| Notes | - |

* Module : Semester Management

Design & Execution Date : 06/10/2021

| Test Case ID. | 46 |
| --- | --- |
| Priority | High |
| Test Title | Creating Semesters |
| Test Description | This test case checks whether semesters are created or not |
| Dependency | Connection to the Realtime Database and internet |
| Steps | Admin opens the app and clicks on Course Management > Course > Course Structure > Semesters > Add (+) Button on toolbar |
| Expected Result | Semesters Added Successfully |
| Actual Result | Semester starting from 0 |
| Estimated Time | 1 second, automatically generated |
| Status | Fail |
| Notes | Add + 1 to the semester. |

| Test Case ID. | 47 |
| --- | --- |
| Priority | High |
| Test Title | Creating Semesters |
| Test Description | This test case checks whether semesters are created or not |
| Dependency | Connection to the Realtime Database and internet |
| Steps | Admin opens the app and clicks on Course Management > Course > Course Structure > Semesters > Add (+) Button on toolbar |
| Expected Result | Semesters Added Successfully |
| Actual Result | Success |
| Estimated Time | 1 second, automatically generated |
| Status | Pass |
| Notes | - |

* Module : Subjects Management

Design & Execution Date : 07/10/2021 - 08/10/2021

| Test Case ID. | 48 |
| --- | --- |
| Priority | High |
| Test Title | Creating Subjects |
| Test Description | This test case checks whether subjects are created or not |
| Dependency | Connection to the Realtime Database and internet |
| Steps | Admin opens the app and clicks on Course Management > Course > Course Structure > Semesters > Subjects > Add (+) Button on toolbar |
| Expected Result | Subjects Added successfully |
| Actual Result | Success |
| Estimated Time | 3-4 mins, depending on admin |
| Status | Pass |
| Notes | - |

| Test Case ID. | 49 |
| --- | --- |
| Priority | High |
| Test Title | Viewing Semesters & Subjects |
| Test Description | This test case checks whether semesters and subjects can be viewed easily and user can navigate between them easily |
| Dependency | Connection to the Realtime Database and internet |
| Steps | Admin opens the app and clicks on Course Management > Course > Course Structure > Semesters & Subjects |
| Expected Result | Semesters and Subjects easily retrieved and shown |
| Actual Result | Success |
| Estimated Time | 2 seconds, depends on internet |
| Status | Pass |
| Notes | - |

* Module : Timetable Management

Design & Execution Date : 10/10/2021 - 12/10/2021

| Test Case ID. | 50 |
| --- | --- |
| Priority | High |
| Test Title | Creating Timetable |
| Test Description | This test case checks whether timetables can be easily created or not |
| Dependency | Connection to the Realtime Database and internet and teacher is created |
| Steps | Admin clicks on Timetable card view in home screen and then clicks on "+" button in timetable Fragment and then after successfully creating timetable, he/she adds subjects in the weeks model and assigns every subject to a teacher |
| Expected Result | Timetable created |
| Actual Result | Timetable was created but couldn't add subjects as there was no plus menu |
| Estimated Time | 5-6 mins depending on the admin |
| Status | Fail |
| Notes | Inflate add menu in subjects fragment |

| Test Case ID. | 51 |
| --- | --- |
| Priority | High |
| Test Title | Creating Timetable |
| Test Description | This test case checks whether timetables can be easily created or not |
| Dependency | Connection to the Realtime Database and internet and teacher is created |
| Steps | Admin clicks on Timetable card view in home screen and then clicks on "+" button in timetable Fragment and then after successfully creating timetable, he/she adds subjects in the weeks model and assigns every subject to a teacher |
| Expected Result | Timetable created |
| Actual Result | When ticking the checkbox of practical, engineering activity edit text not shown |
| Estimated Time | 5-6 mins depending on the admin |
| Status | Fail |
| Notes | Implement onChecked Listener |

| Test Case ID. | 52 |
| --- | --- |
| Priority | High |
| Test Title | Creating Timetable |
| Test Description | This test case checks whether timetables can be easily created or not |
| Dependency | Connection to the Realtime Database and internet and teacher is created |
| Steps | Admin clicks on Timetable card view in home screen and then clicks on "+" button in timetable Fragment and then after successfully creating timetable, he/she adds subjects in the weeks model and assigns every subject to a teacher |
| Expected Result | Timetable created |
| Actual Result | Expandable Menu not working |
| Estimated Time | 5-6 mins depending on the admin |
| Status | Fail |
| Notes | Use isExpanded() method to toggle the behaviour |

| Test Case ID. | 53 |
| --- | --- |
| Priority | High |
| Test Title | Creating Timetable |
| Test Description | This test case checks whether timetables can be easily created or not |
| Dependency | Connection to the Realtime Database and internet and teacher is created |
| Steps | Admin clicks on Timetable card view in home screen and then clicks on "+" button in timetable Fragment and then after successfully creating timetable, he/she adds subjects in the weeks model and assigns every subject to a teacher |
| Expected Result | Timetable created |
| Actual Result | App Crashes upon adding a subject |
| Estimated Time | 5-6 mins depending on the admin |
| Status | Fail |
| Notes | If there is not a single structure in the course then first initialize a empty Array List and then add structures |

| Test Case ID. | 54 |
| --- | --- |
| Priority | High |
| Test Title | Creating Timetable |
| Test Description | This test case checks whether timetables can be easily created or not |
| Dependency | Connection to the Realtime Database and internet and teacher is created |
| Steps | Admin clicks on Timetable card view in home screen and then clicks on "+" button in timetable Fragment and then after successfully creating timetable, he/she adds subjects in the weeks model and assigns every subject to a teacher |
| Expected Result | Timetable created |
| Actual Result | Success |
| Estimated Time | 5-6 mins depending on the admin |
| Status | Pass |
| Notes |  |

| Test Case ID. | 55 |
| --- | --- |
| Priority | High |
| Test Title | Viewing Timetable |
| Test Description | This test case checks whether a timetable can be viewed in day, 3 days, weeks, month and schedule mode |
| Dependency | Connection to the Realtime Database and internet and timetable is created |
| Steps | Student opens the app and the home screen is a calendar with filter options mainly day, 3 days, week, month and schedule |
| Expected Result | Student can view timetable schedule |
| Actual Result | App crashes |
| Estimated Time | 100ms, depends on the internet |
| Status | Fail |
| Notes | Null Pointer exception, no timetable retrieved. |

| Test Case ID. | 56 |
| --- | --- |
| Priority | High |
| Test Title | Viewing Timetable |
| Test Description | This test case checks whether a timetable can be viewed in day, 3 days, weeks, month and schedule mode |
| Dependency | Connection to the Realtime Database and internet and timetable is created |
| Steps | Student opens the app and the home screen is a calendar with filter options mainly day, 3 days, week, month and schedule |
| Expected Result | Student can view timetable schedule |
| Actual Result | App crashes |
| Estimated Time | 100ms, depends on the internet |
| Status | Fail |
| Notes | Can't draw canvas, enable appropriate libraries |

| Test Case ID. | 57 |
| --- | --- |
| Priority | High |
| Test Title | Viewing Timetable |
| Test Description | This test case checks whether a timetable can be viewed in day, 3 days, weeks, month and schedule mode |
| Dependency | Connection to the Realtime Database and internet and timetable is created |
| Steps | Student opens the app and the home screen is a calendar with filter options mainly day, 3 days, week, month and schedule |
| Expected Result | Student can view timetable schedule |
| Actual Result | Can't go in different modes |
| Estimated Time | 100ms, depends on the internet |
| Status | Fail |
| Notes | Inflate the filter menu |

| Test Case ID. | 58 |
| --- | --- |
| Priority | High |
| Test Title | Viewing Timetable |
| Test Description | This test case checks whether a timetable can be viewed in day, 3 days, weeks, month and schedule mode |
| Dependency | Connection to the Realtime Database and internet and timetable is created |
| Steps | Student opens the app and the home screen is a calendar with filter options mainly day, 3 days, week, month and schedule |
| Expected Result | Student can view timetable schedule |
| Actual Result | Month view not working |
| Estimated Time | 100ms, depends on the internet |
| Status | Fail |
| Notes | Cast the Day model into Month model |

| Test Case ID. | 59 |
| --- | --- |
| Priority | High |
| Test Title | Viewing Timetable |
| Test Description | This test case checks whether a timetable can be viewed in day, 3 days, weeks, month and schedule mode |
| Dependency | Connection to the Realtime Database and internet and timetable is created |
| Steps | Student opens the app and the home screen is a calendar with filter options mainly day, 3 days, week, month and schedule |
| Expected Result | Student can view timetable schedule |
| Actual Result | Timetable not showing |
| Estimated Time | 100ms, depends on the internet |
| Status | Fail |
| Notes | Retrieve the timetable and cast accordingly |

| Test Case ID. | 60 |
| --- | --- |
| Priority | High |
| Test Title | Viewing Timetable |
| Test Description | This test case checks whether a timetable can be viewed in day, 3 days, weeks, month and schedule mode |
| Dependency | Connection to the Realtime Database and internet and timetable is created |
| Steps | Student opens the app and the home screen is a calendar with filter options mainly day, 3 days, week, month and schedule |
| Expected Result | Student can view timetable schedule |
| Actual Result | Clicking on any timetable schedule crashes the app |
| Estimated Time | 100ms, depends on the internet |
| Status | Fail |
| Notes | Make an intent and then pass on the model to that intent and then display data accordingly. The views were not initialized, that's why crashed |

| Test Case ID. | 61 |
| --- | --- |
| Priority | High |
| Test Title | Viewing Timetable |
| Test Description | This test case checks whether a timetable can be viewed in day, 3 days, weeks, month and schedule mode |
| Dependency | Connection to the Realtime Database and internet and timetable is created |
| Steps | Student opens the app and the home screen is a calendar with filter options mainly day, 3 days, week, month and schedule |
| Expected Result | Student can view timetable schedule |
| Actual Result | Heavily dependent on a single activity |
| Estimated Time | 100ms, depends on the internet |
| Status | Pass but not optimised |
| Notes | Make fragments and don't inflate the basic views programmatically |

| Test Case ID. | 62 |
| --- | --- |
| Priority | High |
| Test Title | Viewing Timetable |
| Test Description | This test case checks whether a timetable can be viewed in day, 3 days, weeks, month and schedule mode |
| Dependency | Connection to the Realtime Database and internet and timetable is created |
| Steps | Student opens the app and the home screen is a calendar with filter options mainly day, 3 days, week, month and schedule |
| Expected Result | Student can view timetable schedule |
| Actual Result | Success |
| Estimated Time | 100ms, depends on the internet |
| Status | Pass |
| Notes |  |