Project Title : STUDENT COMPANION APPLICATION

Name : Jogesh Mishra

Branch : Electrical Engineering

Year : 2nd Year

FEATURES & USAGES

* ­­­When the Application is clicked, it opens up the Splash Screen and then redirects the user to Log-In Activity.
* In the Log-In Activity, the user is provided with the following options :

1. Log-In : If already registered, the user will be logged into the application when the Log-In button will be clicked after entering the registered E-mail ID and Password.
2. Register : To register a user for the application. If not registered, then you won’t be able to Log-In into the Application. When clicked on the Register Button it will redirect the user to Register Activity where the user needs to provide his name, E-mail Id and Password. After being registered, the user will be shifted back to the Log-In Activity where he can Log-In into the application using the registered E-mail Id and Password.
3. Forgot Password : Clicking on this Text will send a password reset mail to the E-mail Id entered on the Log-In activity, only if the e-mail id is registered.

* The Logged In user will stay logged in until he Logs out of the Application. Hence, once logged in , the user will be directed into the application directly, without the need to enter the same E-mail ID and Password again.
* After Logging in , the user will be redirected to a **Tutorial Screen** where the necessary details of the Application will be provided. The Tutorial Screen will appear only for the new Log-In, but not for the users that are already logged in into the application and have not logged out yet.

**Tutorial Screen** consists of two activities :

1. Welcome : This screen welcomes the logged In user and notifies the user regarding the application and its uses.
2. What it Contains : This screen gives the list of all features along with the work they perform.

* After the Tutorial Screen, the user will be directed into the Main Activity of the Application, where he will have the different features that the application provides :

1. Calculator : When clicked on this button, the user will be redirected to the inbuilt calculator in the android phone where he can do all sorts of calculations.
2. Camera : Clicking on this Button will allow the user to click pictures of the important documents, notes, assignments and more , using the inbuilt Camera application in the Android Phone. The Clicked pictures will be saved in the Gallery of the phone.
3. Time-Table : Clicking on this Button will redirect the user into an activity where he can see the picture of the Time-Table.

* To upload a new Time-Table :

1. Click on New Time Table button
2. Choose the picture of time-table you want to upload
3. Click on Add button , where the Time-Table will be uploaded the Firebase Storage.

The New Timetable will be added in place of the old timetable.

This helps the user to have the present Time-Table with himself for which the user won’t need to search the whole gallery for the time-table.

1. Syllabus : On clicking this Button, the user will be redirected into an Activity where he would needs to select the Semester and Subject from the Drop Down Menu (Spinner) for each. After selecting the above options, the user can see the Syllabus for that subject along with the books prescribed.

This mainly benefits the user to have the Syllabus on the go, instead of searching for it all over the phone. The Spinner category makes it easier for the user to see the syllabus for any specific subject.

1. Academic : On clicking this Button, the user will be directed into the Academic Activity where he would have the options for various tasks.

These options include :

* Contact Us : This button would lead the user to a Activity where he can Call the Academic Section of the Institution, visit the Website of the Institution , E-mail the Institution at it’s email id and find the location of the institution on google maps .
* Notice Board(Facebook) : This button would redirect the user to Notice Board group of the Institution in Facebook where the necessary details are being provided.
* Academic : This button will redirect the user into an activity where he would find many other advanced options, like Back Paper, Documents, Internship and Material.

Brief on these Options :

* Back Paper : Clicking on this button will get the user two options : Add back Paper and See Back Paper. On clicking Add back Paper, the user needs to provide the Semester, Subject and Number of Attempts for the Back Paper and click on Submit ,after which the Add Back Paper activity will be finished. To see the added Back Paper, the user needs to click on See Back Paper.

The data for Back Paper will be stored in the Cloud Storage (Firebase) for which it will be easy for the user to add and retrieve the data without any difficulty.

* Documents : Clicking on this button will shift the user into an Activity where he has two Options : Choose and Show Upload.

To add any important Document :

1. Click on Choose Button
2. This will open the Gallery, where the user needs to select the document.
3. On selecting the document, the user needs to add a name to the Document that he chose.
4. Click on Upload. This will store the image on Firebase Storage.

To see the Uploaded Documents Click on Show Upload.

This will help the user to store the important Documents like payment slips, marksheets etc. on the cloud storage where all of the would be safe and the user can easily see them on his Android Phone.

* Internship : Clicking on this will move the user to Internshala.com where the students can search for internships and excel in their talents. This will benefit the students as they would be familiar with the internships and how it is done as well as provide them with opportunity to go for some internships.
* Material : Clicking on this will redirect the user to Google Classroom where the students can find the uploaded assignments from their teachers , along with the uploaded books and notes. This is to make the students self sufficient to have the materials that they need at any time, instead of digging the web.

1. To Do : This list will move the user to an activity where the user can add the task he has to do. This will help the user to keep a track of what he needs to do in form of notes. This uses the input/output file method by creating a file and storing the task. To delete a task, the user needs to click on the task and it will be deleted.
2. Fine : This button will calculate the fine to be paid to the library if the student fails to return it in the stipulated period of time. This will save the time of the student as he doesn’t need to wait for this turn in the library to talk to the librarian regarding the fine he has to pay as well as the librarian will be relieved of the task to inform the students about the fine structure.
3. Id Card : By clicking on this button, the user can store and see the image of his Id-Card. This is quite helpful as this would keep the Id-Card within the device , so making it easier for the student to carry it with him everywhere. Moreover , this will even help the student to keep his ID Card safe with himself.

The user can change the Id Card image by clicking on Change Button , Click on Choose to select the image, Add a name to the image and at last Click on Add Img button to replace the old Id-card with the new one.

1. Github : Clicking on this will direct the user to github website and he would be able to harness the various technical advancements and improve his knowledge. The user can create a id of himself and share his knowledge with rest of the world, even add recommendations to someone’s work.
2. Sports : Clicking on this button will open a dialog box with the various sports in the institution. Clicking on any one will shift the user to their respective pages on social media by which everyone can keep an eye on the co-curricular achievements and progress in the college.
3. Technical : Clicking on this button will open a dialog box with the various Technical clubs in the institution. Clicking on any one will shift the user to their respective pages by which the user can see the Technical advancements and works of other students in their Institution for respective clubs.
4. Cultural : Clicking on this button will open a dialog box with the various Cultural Clubs in the institution. Clicking on any one will shift the user to their respective pages on social media by which everyone can keep an eye on the co-curricular achievements and progress in the college.
5. News : Clicking on this button will help the user to see the news across the world. This will expand the horizons of the student from the activities inside the Institution to all across the world, by which one can cope with the day to day changes and happenings all over.
6. Order Food : This button will allow the user to call on a number to order food. The students won’t need to stand in long queues anymore, all this would be done by just a phone call.
7. Assignment : This Button will transfer the user to an activity where he needs to add the name of the task, date and time. On clicking on Add Notifier, a Notification will come up on the entered date and time to the Android Phone informing the user about the task.

This will not only help the user to keep a track of the assignments he needs to submit but also inform the user regarding it depending on the time that has been set by the user.

The Activity Bar in Main Activity has the Logout button which will logout the user from the Main Activity. To use the application again, the user needs to log-in again.

FUTURE SCOPE

In this Section we will discuss about the developments in the application that we plan to work for in the future.

* The Calculator facility in the application will be updated to support most android devices.
* Time Table, Back Paper, Documents and Id-Card options will be modified to accept the image from the user, store it in the Firebase storage and Display it accordingly. Currently, the application is able to accept the images and store them in the Firebase Storage, but we are unable to display it in the Application. We will work on this feature in the future.
* The Syllabus section will be expanded to more subjects and their respective books that will be prescribed by the Institution.
* A button to issue books will be added where the user will input the name of the book along with the author, which will be uploaded to Firebase Database and sent to the Librarian to help in issuing it.
* A button to order various Stationary items will be added where the user can enter the name of items which will be sent to the Firebase Database and then to in-campus Stationary shop, according to which the delivery would take place.
* The Assignment button would be worked upon to work it on most devices.
* The Assignment button would be programmed to set a repeated reminder notifier as well as work with the notification, instead of the toast which it is currently working on.
* The Bugs would be fixed and the application would be made compatible to work on most of the devices