

# **Chapter 1**

## **Simulation and Results**

Simulation and Results shows the working process of the app and the result. It mimics the entire process from loading an image through preprocessing and extracting features, to even viewing and exporting to Excel. It proves that whether a user is an engineer, a designer, or a scientist, they are likely to find the app effective in its goal of converting picture data into easy to analyze Excel tables..

### **1.1 Faculties UI Flow**

The Faculties' UI flow simplifies image-to-Excel conversion with an intuitive process: upload images, read extracted data and modify, and also save to Excel. The app guarantees the precision and convenience, as well as the further instructions on utilizing the app from the upload to the creation of a file.

#### **1.1.1 Splash Screen / Welcome Page**

- Login with google welcome screen.

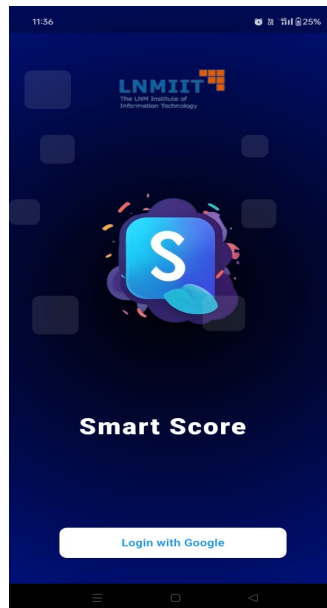


FIGURE 1.1: Splash Screen UI

### 1.1.2 Select account Page

- Select account to login into the App.

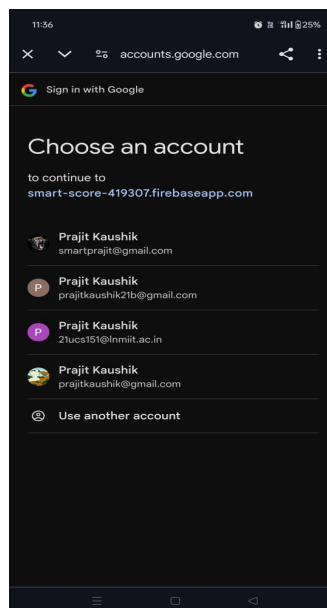


FIGURE 1.2: Select Account

### 1.1.3 Home Page

- In Home Page users can choose between creating a new excel sheet or upload an existing one for data management.

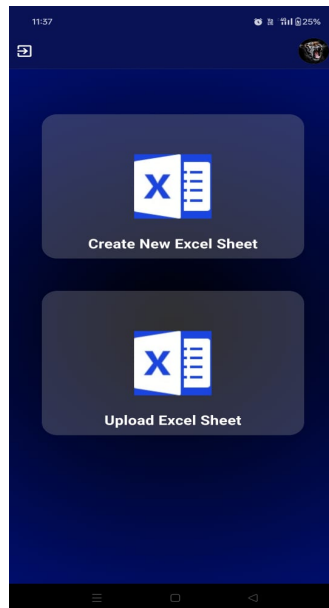


FIGURE 1.3: Home Page

If you click on the create new excel functionality you will be directed to exam details page otherwise if you click on upload excel sheet then you will be directed to the files to upload excel sheet and make entries in it.

#### 1.1.4 Exam Details Page

- Enter the details of the exam for which you want to create data.

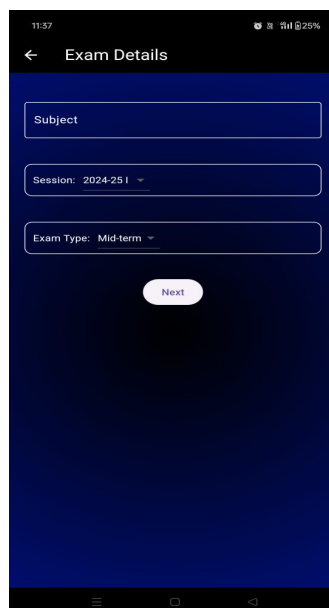


FIGURE 1.4: Exam Details Page

### 1.1.5 Upload excel Page

- Upload the excel sheet which contains the students Name and RollNo.

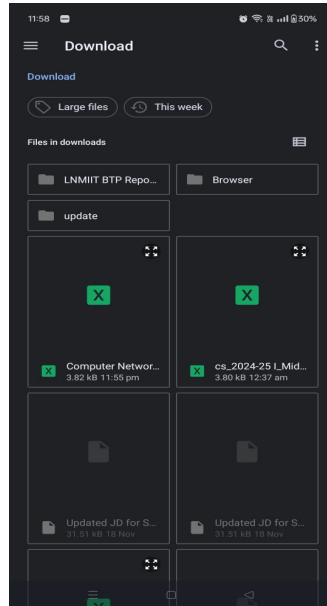


FIGURE 1.5: Upload excel Page

Both the above pages will lead to the Take Photo Page.

The format of the input Excel will be the same as the below one

DSA_2024-25 I_Mid-term-1.xlsx															
Saved on device															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	S. No.	Roll Number	Name	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10	Total Marks	
2	1	21ucs001	Om Gupta												
3	2	21ucs002	Aarav Sharma												
4	3	21ucs003	Ananya Gupta												
5	4	21ucs004	Rohan Verma												
6	5	21ucs005	Ishita Mehta												
7	6	21ucs006	Kunal Patel												
8	7	21ucs007	Sneha Iyer												
9	8	21ucs008	Arjun Reddy												
10	9	21ucs009	Priya Chawla												
11	10	21ucs010	Siddharth Nair												
12	11	21ucs011	Aditi Deshmukh												
13	12	21ucs012	Varun Singh												
14	13	21ucs013	Kavya Bose												
15	14	21ucs014	Rajat Khanna												
16	15	21ucs015	Neha Kannor												

FIGURE 1.6: Input Excel Format

### 1.1.6 Take Photo Page

- Click on Take Photo and capture the image of the answer sheet to extract marks.

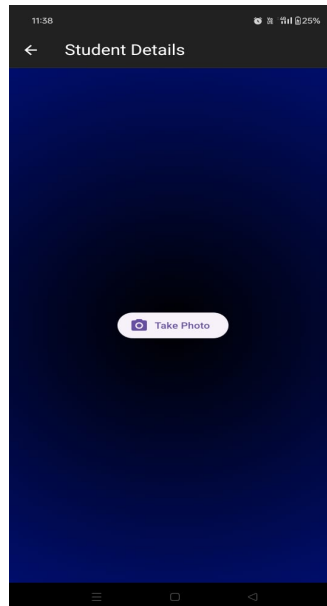


FIGURE 1.7: Take Photo Page

### 1.1.7 Capture Image Page

- Capture the image of the answer sheet, you can let it auto capture or manually capture the photo.

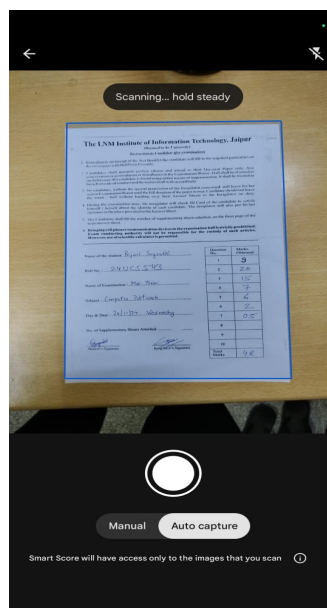


FIGURE 1.8: Capture Image Page

### 1.1.8 Cropped Image Page

- This page shows the image of the page after removing the boundaries from it, if the boundaries are properly cropped then click on Done.

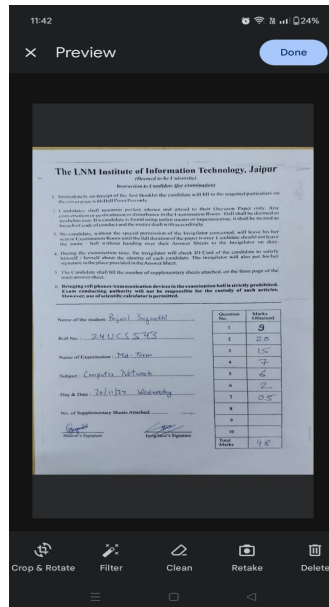


FIGURE 1.9: Cropped Image Page

### 1.1.9 Cropped Table Page

- This page shows the image of the page after extracting the Table from it, if the boundaries are properly cropped then click on Next otherwise Retake Image

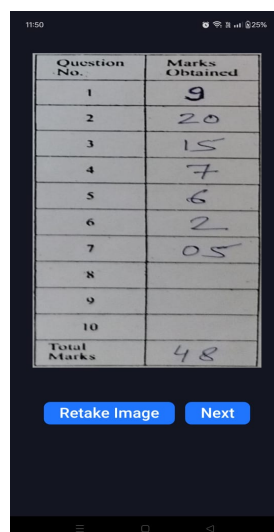
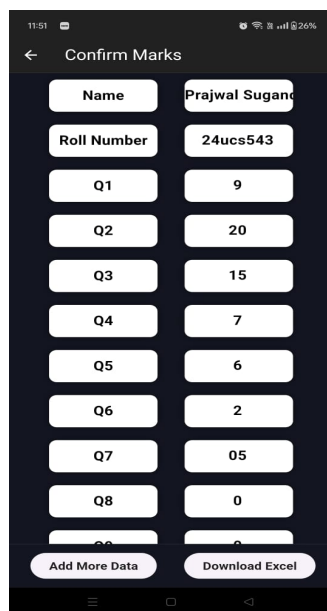


FIGURE 1.10: Cropped Table Page

### 1.1.10 Marks Recheck Page

- This page displays the Name and RollNo of the student and shows the marks corresponding to each question. All the details are in editable format so do correct if something is wrong. Here the name is automatically fetched from the database corresponding to the roll number. Now user has two options to Add more data or Download the excel.



Name	Prajwal Sugand
Roll Number	24ucs543
Q1	9
Q2	20
Q3	15
Q4	7
Q5	6
Q6	2
Q7	05
Q8	0
Q9	0

Buttons: Add More Data, Download Excel

FIGURE 1.11: Marks Recheck Page

Clicking on Add More Data takes you to the Take Photo page to add more student data, whereas clicking Download Excel forms Excel in the downloads folder of your phone.

### 1.1.11 Success Entry Page

- Displays success message.

11:54

Confirm Marks

Name: Prajwal Sugand

Roll Number: 24ucs543

Q1: 7

Q2: 6

Successful

Excel is successfully downloaded in the downloads folder of phone

OK

Q6: 17

Q7: 15

Q8: 0

Q9: 0

Q10: 0

Add More Data Download Excel

FIGURE 1.12: Success Entry Page

### 1.1.12 Generated Excel File

- The generated excel file from both options will look like below

DSA\_2024-25 I\_Mid-term.xlsx

Not saved yet

S. No.	Roll Number	Name	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10	Total Marks
1	21ucs001	Om Gupta	4	1.5	2	2.5	0	0	0	0	0	0	10
2	21ucs002	Aarav Sharma	3	1	3	2.5	0	0	0	0	0	0	9.5
3	21ucs003	Ananya Gupta	1	0	5	1.5	0	0	0	0	0	0	7.5
4	21ucs004	Rohan Verma	4	0	1.5	1	0	0	0	0	0	0	6.5
5	21ucs005	Ishita Mehta	2.5	2	2	0	0	0	0	0	0	0	6.5
6	21ucs006	Kunal Patel	2.5	3	3	0	0	0	0	0	0	0	8.5
7	21ucs007	Sneha Iyer	1.5	5	1	2	0	0	0	0	0	0	9.5
8	21ucs008	Arjun Reddy	1	1.5	5	3	0	0	0	0	0	0	10.5
9	21ucs009	Priya Chawla	0	2	0.5	5	0	0	0	0	0	0	7.5
10	21ucs010	Siddharth Nair	0	3	1	1	0	0	0	0	0	0	5
11	21ucs011	Aditi Deshmukh	2	1	5	5	0	0	0	0	0	0	13
12	21ucs012	Varun Singh	3	5	1	3	0	0	0	0	0	0	12
13	21ucs013	Kavya Bose	5	3	5	1	0	0	0	0	0	0	14
14	21ucs014	Rajat Khanna	1.6	2	0.5	5	0	0	0	0	0	0	9.1
15	21ucs015	Neha Kapoor	2	1	0	3	0	0	0	0	0	0	6

Sheet1

FIGURE 1.13: Generated Excel



## 1.2 Admins' UI Flow

Admins have additional management functionalities. Most of the UI is identical to faculties except for two unique pages:

### 1.2.1 Home Page

- In this page everything is same as Faculty's UI flow except for Access Admin Control Option.

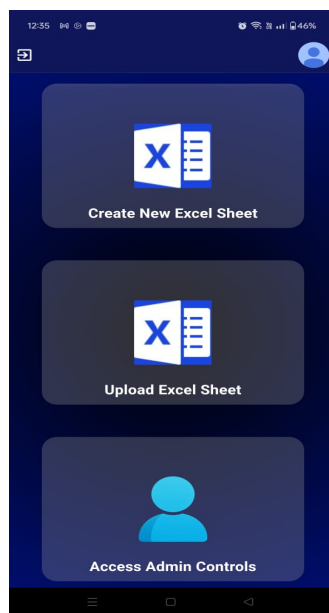


FIGURE 1.14: Dashboard Page for Admins

### 1.2.2 Student Management Page

- This page gives access to making changes in the students database by inserting, retrieving and deleting data from database.

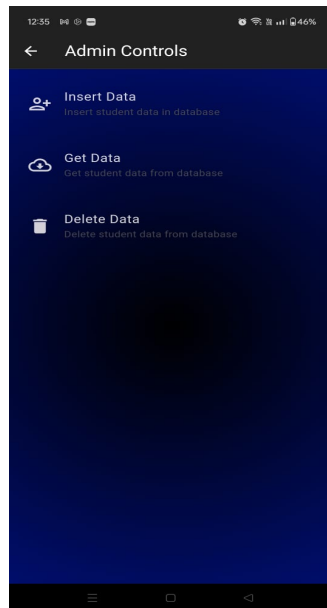


FIGURE 1.15: Student Management Page for Admins

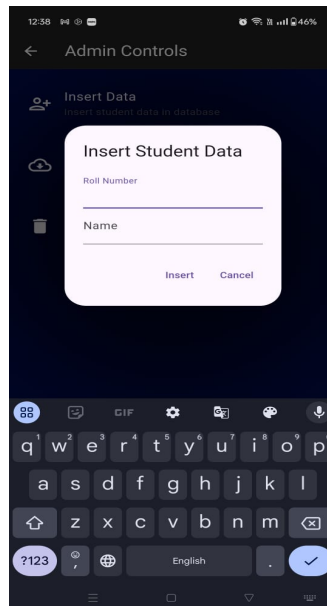


FIGURE 1.16: Insert Student data

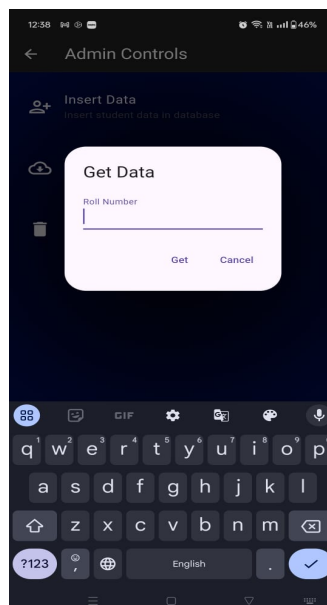


FIGURE 1.17: Retrieve student data