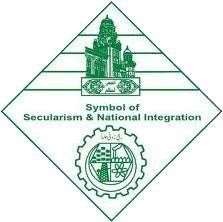
**Anjuman-I-Islam**

**M.H. Saboo Siddik Polytechnic**



MOBILE APPLICATION DEVELOPMENT (MAD) MICROPROJECT

COMPUTER ENGINEERING DEPARTMENT

CO-6I

TITLE: NEWS APP

YEAR: 2023-24

**Prepared by:**

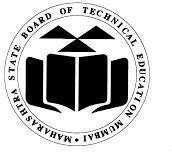
210451: Abdurrahman Qureshi

210453: Saad Ansari

210460: Arya More

210463: Adnan Kazi

**Under the guidance of**: Prof. Shafaque Julaha



**MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION**

**Certificate**

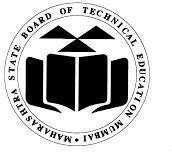
# Ther is to certify that Mr. Abdurrahman Qureshi Roll no. 210451 of SIXTH semester of Diploma in Computer Engineering of institute M.H. Saboo Siddik Polytechnic (code: 0002) has completed micro project satisfactorily in the subject: MAD (22617) for the academic year 2023-24 as prescribed in the curriculum.

Place: Byculla, Mumbai Enrolment no:2100020112

. Date : Exam seat no:

|  |  |  |
| --- | --- | --- |
| **Signature** | **Signature** | **Signature** |
| **Project guide** | **H. O. D** | **Principal** |

SEAL OF INSTITUDE



**MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION**

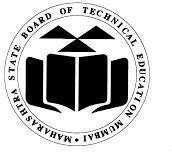
**Certificate**

# Ther is to certify that Mr. Saad Ansari Roll no. 210453 of SIXTH semester of Diploma in Computer Engineering of institute M.H. Saboo Siddik Polytechnic (code:0002) has completed micro project satisfactorily in the subject: MAD (22617) for the academic year 2023-24 as prescribed in the curriculum.

Place: Byculla, Mumbai Enrolment no:2100020102 Date: Exam seat no:

|  |  |  |
| --- | --- | --- |
| **Signature** | **Signature** | **Signature** |
| **Project guide** | **H. O. D** | **Principal** |

SEAL OF INSTITUDE



**MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION**

**Certificate**

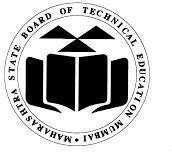
# Ther is to certify that Mr. Arya More Roll no. 210460 of SIXTH semester of Diploma in Computer Engineering of institute M.H. Saboo Siddik Polytechnic (code:0002) has completed micro project satisfactorily in the subject: MAD (22617) for the academic year 2023-24 as prescribed in the curriculum.

Place: Byculla, Mumbai Enrolment no:2100020097

. Date: Exam seat no:

|  |  |  |
| --- | --- | --- |
| **Signature** | **Signature** | **Signature** |
| **Project guide** | **H. O. D** | **Principal** |

SEAL OF INSTITUDE



**MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION**

**Certificate**

# Ther is to certify that Mr. Adnan Kazi Roll no. 210463 of SIXTH semester of Diploma in Computer Engineering of institute M.H. Saboo Siddik Polytechnic (code:0002) has completed micro project satisfactorily in the subject: MAD (22617) for the academic year 2023-24 as prescribed in the curriculum.

Place: Byculla, Mumbai Enrolment no:2100020117

. Date: Exam seat no:

|  |  |  |
| --- | --- | --- |
| **Signature** | **Signature** | **Signature** |
| **Project guide** | **H. O. D** | **Principal** |

SEAL OF INSTITUDE

ACKNOWLEDGMENT

We wish to express our profound gratitude to our guide Ms. Shafaque Julaha who guided us endlessly in the framing and completion of the micro project. She guided us on all the main points in that micro project. We are indebted to her constant encouragement, cooperation, and help. It was her enthusiastic support that helped us in overcoming various obstacles in the micro-project.

We are also thankful to our Principal, HOD, faculty members and classmates of Computer Engineering department for extending their support and motivation in the completion of ther micro-project.

Names of Team Members with Roll Nos.

1. Abdurrahman Qureshi - 210451
2. Saad Ansari - 210453
3. Arya More - 210460
4. Adnan Kazi - 210463

**Annexure-I**

***Micro project proposal***

**Title of micro project: News App**

## Aims/Benefits of micro project

The project aims to create an immersive user experience, cultivating a vibrant community through seamless navigation and robust user authentication. With the ability for users to contribute articles, it enhances engagement and inclusivity, fostering a sense of ownership and belonging within the community.

## Course outcomes addressed

* + Interpret features of Android operating system.
  + Configure Android environment and development tools.
  + Develop rich user Interfaces by using layouts and controls.
  + Use User Interface components for android application development.
  + Create Android application using database.
  + Publish Android applications.

## Proposed methodology

1. Discussion of topic with guide and group members.
2. Dividing the work and Gathering information about the project.
3. Submission of project proposal. (Annexure I).
4. Collection and Analysis of data / information from various News Apps:
   * Aaj Tak Live App
   * Times of India
   * Google News
   * Inshorts
5. Building the Home Activity with Login functionality.
6. Building the Add article Activity.
7. Building the Profile Activity
8. Building the Entertainment Activity
9. Building the Fashion Activity.
10. Building the Sports Activity.
11. Building the Games Activity.
12. Integration of all the Activities.
13. Testing the Project for Bugs and Errors.
14. Preparation of the project report (Annexure II).
15. Micro project Submission and Viva.
16. **Action Plan**

## Annexure-I

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Weeks** | **Details of activity** | **Planned start date** | **Planne dfinish date** | **Name of responsible team members** |
| 1& 2 | Discussions & finalization of topics |  |  | Abdurrahman / Saad/Arya/Adnan |
| 3 | Dividing the work among group members Entertainment/Sports/Games/Fashion |  |  | Saad & Arya |
| 4 | Submission of micro project proposal (Annexure I) |  |  | Abdurrahman / Saad/Arya/Adnan |
| 5 | Collection of the information of the topics Entertainment/Sports/Games/Fashion/Add article Activities |  |  | Abdurrahman / Saad/Arya/Adnan |
| 6 | Collection of all relevant content / materials for the execution of the project. |  |  | Abdurrahman / Saad/Arya/Adnan |
| 7 | Execution of collected data and preparing layout of the website and building different Activities of the website. |  |  | Abdurrahman / Saad/Arya/Adnan |
| 8 | Final Testing of Individual Tasks |  |  | Abdurrahman / Saad/Arya/Adnan |
| 9 | Integration of all the Activities |  |  | Adnan/Abdurrahman |
| 10 | Testing the project for bugs and errors |  |  | Saad & Arya |
| 11 | Preparation of the project report (Annexure II) |  |  | Adnan/Abdurrahman |
| 12 | Micro Project Submission and Viva |  |  | Abdurrahman / Saad/Arya/Adnan |

1. **Resources required**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. no.** | **Name of resources** | **Specifications** | **Qty** | **Remarks** |
| 1. | Website | [https://www.geeksforgeeks.](https://www.geeksforgeeks.org/) [org/](https://www.geeksforgeeks.org/) [https://www.w3schools.com](https://www.w3schools.com/)  [/](https://www.w3schools.com/) | 2 sites |  |
| 2. | Desktop | Microsoft word, Notepad, Chrome and other tools with internet facility. | 1 for each |  |

Names of Team Members with Roll Nos.

1. Abdurrahman Qureshi - 210451
2. Saad Ansari - 210453
3. Arya More - 210460
4. Adnan Kazi - 210463

Approved by:

Sign of Faculty:

Name of faculty: Prof. Shafaque Julaha

**Annexure-I**

***Micro project Report***

**Title of micro project: News App**

1. **Rationale**

ECO ECO Magazine aims to fill a gap in online media by offering a diverse range of articles focused on Entertainment, Fashion, Sports, and Games. Through MAD micro project implementation, it seeks to provide an accessible platform for users to engage with high-quality content tailored to their interests.

1. **Aims/Benefits of the microproject**

The project aims to create an immersive user experience, cultivating a vibrant community through seamless navigation and robust user authentication. With PDF download options and the ability for users to contribute articles, it enhances engagement and inclusivity, fostering a sense of ownership and belonging within the community.

1. **Course outcomes achieved**
   * Interpret features of Android operating system.
   * Configure Android environment and development tools.
   * Develop rich user Interfaces by using layouts and controls.
   * Use User Interface components for android application development.
   * Create Android application using database.
2. **Literature review**

Mobile news apps play a crucial role in delivering timely information to users, requiring careful consideration in design, development, and monetization strategies. Challenges such as content moderation, data privacy, and market competition necessitate innovative solutions for maintaining user engagement and satisfaction. Emerging trends like AI, machine learning, and augmented reality offer opportunities to enhance content delivery and user experiences. Looking ahead, the landscape of news apps will continue to evolve, presenting developers and publishers with opportunities to innovate and adapt to the changing needs and preferences of users.

1. **Actual Methodology Followed**

We were assigned with the microproject topic and time was assigned to us to complete the project in 13 weeks. All team members worked together in these 13 weeks together in order to complete ther microproject. Data was collected according to our topic. Project was implemented and finally at last technical report was prepared.

1. **Actual resources used**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. no.** | **Name of resources** | **Specifications** | **Qty** | **Remarks** |
| 1. | Website | [https://www.geeksforgeeks.](https://www.geeksforgeeks.org/) [org/](https://www.geeksforgeeks.org/) [https://www.w3schools.com](https://www.w3schools.com/)  [/](https://www.w3schools.com/) | 2 sites |  |
| 2. | Software | Microsoft word, Notepad, Android Studio, Chrome and other tools with internet facility. | 1 for each |  |

1. **Outputs of the microproject**

**LOGIN & SIGNUP ACTIVITY**

**Sign up[XML]:-**

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="@color/primary\_color"  
 tools:context=".SignupPage"  
 android:paddingTop="50dp"  
 >  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
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 android:textAlignment="center"  
 android:textAllCaps="true"  
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 android:textSize="30dp"  
 tools:ignore="MissingConstraints" />  
  
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 android:textColor="@color/secondary\_color"  
 android:textSize="20dp"  
 tools:ignore="MissingConstraints" />  
  
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 android:textSize="16dp"  
 android:padding="10dp"  
 android:textColor="@color/secondary\_color"  
 android:textColorHint="@color/hint\_color"  
 tools:ignore="MissingConstraints" />  
  
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 android:layout\_height="wrap\_content"  
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 android:textSize="20dp"  
 tools:ignore="MissingConstraints" />  
  
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 android:id="@+id/userPassword"  
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 android:layout\_marginTop="250dp"  
 android:layout\_marginRight="50dp"  
 android:background="@drawable/rounded\_corner"  
 android:hint="Enter password here..."  
 android:textSize="16dp"  
 android:padding="10dp"  
 android:textColorHint="@color/hint\_color"  
 android:textColor="@color/secondary\_color"  
 tools:ignore="MissingConstraints" />  
  
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 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="300dp"  
 android:text="Phone Number"  
 android:textAlignment="center"  
 android:textColor="@color/secondary\_color"  
 android:textSize="20dp"  
 tools:ignore="MissingConstraints" />  
  
 <EditText  
 android:id="@+id/userPhoneNumber"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
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 android:layout\_marginTop="350dp"  
 android:layout\_marginRight="50dp"  
 android:background="@drawable/rounded\_corner"  
 android:hint="Enter phone number here..."  
 android:textSize="16dp"  
 android:textColorHint="@color/hint\_color"  
 android:padding="10dp"  
 android:textColor="@color/secondary\_color"  
 tools:ignore="MissingConstraints" />  
  
 <TextView  
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 android:layout\_height="wrap\_content"  
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 android:textAlignment="center"  
 android:textColor="@color/secondary\_color"  
 android:textSize="20dp"  
 tools:ignore="MissingConstraints" />  
  
 <EditText  
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 android:layout\_marginTop="450dp"  
 android:layout\_marginRight="50dp"  
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 android:textColor="@color/secondary\_color"  
 tools:ignore="MissingConstraints" />  
  
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 android:background="@color/button\_bg"  
 android:paddingRight="15dp"  
 android:paddingLeft="20dp"  
 android:contentDescription="Like button"  
 android:src="@drawable/logout" />  
  
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 android:layout\_gravity="center\_vertical"  
 android:layout\_marginStart="10dp"  
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 android:textColor="@color/secondary\_color"  
 android:textSize="18dp" />  
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 <LinearLayout  
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 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="30dp"  
 android:layout\_marginTop="690dp"  
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 android:paddingLeft="20dp"  
 android:contentDescription="Like button"  
 android:src="@drawable/signup" />  
  
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 android:layout\_height="wrap\_content"

android:layout\_gravity="center\_vertical"  
 android:layout\_marginStart="10dp"  
 android:text="SignUp"  
 android:textColor="@color/secondary\_color"  
 android:textSize="18dp" />  
 </LinearLayout>  
  
</RelativeLayout>

**Profile[XML]:-**

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 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
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 android:layout\_height="match\_parent"  
 tools:context=".ProfilePage"  
 android:paddingTop="50dp"  
 android:background="@color/primary\_color">  
  
 <TextView  
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 android:layout\_height="wrap\_content"  
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 android:text="Profile"  
 android:textAllCaps="true"  
 android:layout\_marginTop="30dp"  
 android:textAlignment="center"  
 android:textSize="30dp"  
 tools:ignore="MissingConstraints" />  
  
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 android:layout\_marginRight="30dp"  
 android:padding="10dp"  
 android:hint="Username"  
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 android:textColor="@color/secondary\_color"  
 android:textColorHint="@color/hint\_color"/>  
  
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 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/editTextUsername"  
 android:layout\_marginTop="20dp"  
 android:layout\_marginLeft="30dp"  
 android:layout\_marginRight="30dp"  
 android:padding="10dp"  
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 android:textColor="@color/secondary\_color"  
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 android:layout\_marginLeft="30dp"  
 android:layout\_marginRight="30dp"  
 android:padding="10dp"  
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 android:background="@drawable/rounded\_corner"  
 android:textColor="@color/secondary\_color"  
 android:textColorHint="@color/hint\_color"/>  
  
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 android:textColor="@color/secondary\_color"  
 android:textColorHint="@color/hint\_color"  
 />  
  
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 android:paddingLeft="20dp"  
 android:paddingRight="15dp"  
 android:contentDescription="Like button"  
 android:src="@drawable/home" />  
  
 <TextView  
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 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center\_vertical"  
 android:layout\_marginStart="10dp"  
 android:text="Back To Home Page"  
 android:textColor="@color/secondary\_color"  
 android:textSize="18dp" />  
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</RelativeLayout>

**Home[XML]:-**

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 android:layout\_height="match\_parent"  
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 >  
  
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 android:layout\_marginTop="75dp"  
 android:layout\_marginRight="30dp"  
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 android:textAlignment="center"  
 android:textSize="30dp"  
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 android:orientation="horizontal"  
 android:padding="10dp"  
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 android:textSize="18dp" />  
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 android:paddingLeft="20dp"  
 android:contentDescription="Like button"  
 android:src="@drawable/fashion" />  
  
 <TextView  
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 android:textColor="@color/secondary\_color"  
 android:textSize="18dp" />  
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 android:layout\_height="wrap\_content"  
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 android:layout\_marginRight="30dp"  
 android:background="@drawable/rounded\_corner"  
 android:orientation="horizontal"  
 android:padding="10dp"  
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 <ImageButton  
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 android:layout\_height="40dp"  
 android:background="@color/button\_bg"  
 android:paddingRight="15dp"  
 android:paddingLeft="20dp"  
 android:contentDescription="Like button"  
 android:src="@drawable/games" />  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center\_vertical"  
 android:layout\_marginStart="10dp"  
 android:text="Go To Games Page"  
 android:textColor="@color/secondary\_color"  
 android:textSize="18dp" />  
 </LinearLayout>  
  
 <LinearLayout  
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 android:layout\_marginTop="375dp"  
 android:layout\_marginRight="30dp"  
 android:background="@drawable/rounded\_corner"  
 android:orientation="horizontal"  
 android:padding="10dp"  
 >  
  
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 android:layout\_width="wrap\_content"  
 android:layout\_height="40dp"  
 android:background="@color/button\_bg"  
 android:paddingRight="15dp"  
 android:paddingLeft="20dp"  
 android:contentDescription="Like button"  
 android:src="@drawable/sports" />  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center\_vertical"  
 android:layout\_marginStart="10dp"  
 android:text="Go To Sports Page"  
 android:textColor="@color/secondary\_color"  
 android:textSize="18dp" />  
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 android:layout\_marginTop="450dp"  
 android:layout\_marginRight="30dp"  
 android:background="@drawable/rounded\_corner"  
 android:orientation="horizontal"  
 android:padding="10dp"  
 >  
  
 <ImageButton  
 android:layout\_width="wrap\_content"  
 android:layout\_height="40dp"  
 android:background="@color/button\_bg"  
 android:paddingRight="15dp"  
 android:paddingLeft="20dp"  
 android:contentDescription="Like button"  
 android:src="@drawable/add\_article" />  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center\_vertical"  
 android:layout\_marginStart="10dp"  
 android:text="Go To Add Article Page"  
 android:textColor="@color/secondary\_color"  
 android:textSize="18dp" />  
 </LinearLayout>  
  
 <LinearLayout  
 android:id="@+id/goToProfile"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="30dp"  
 android:layout\_marginTop="525dp"  
 android:layout\_marginRight="30dp"  
 android:background="@drawable/rounded\_corner"  
 android:orientation="horizontal"  
 android:padding="10dp"  
 >  
  
 <ImageButton  
 android:layout\_width="wrap\_content"  
 android:layout\_height="40dp"  
 android:background="@color/button\_bg"  
 android:paddingRight="15dp"  
 android:paddingLeft="20dp"  
 android:contentDescription="Like button"  
 android:src="@drawable/profile" />  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center\_vertical"  
 android:layout\_marginStart="10dp"  
 android:text="Go To Profile Page"  
 android:textColor="@color/secondary\_color"  
 android:textSize="18dp" />  
 </LinearLayout>  
  
 <LinearLayout  
 android:id="@+id/goToAuth"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="30dp"  
 android:layout\_marginTop="600dp"  
 android:layout\_marginRight="30dp"  
 android:background="@drawable/rounded\_corner"  
 android:orientation="horizontal"  
 android:padding="10dp"  
 >  
  
 <ImageButton  
 android:layout\_width="wrap\_content"  
 android:layout\_height="40dp"  
 android:background="@color/button\_bg"  
 android:paddingLeft="20dp"  
 android:paddingRight="15dp"  
 android:contentDescription="Like button"  
 android:src="@drawable/logout" />  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center\_vertical"  
 android:layout\_marginStart="10dp"  
 android:text="Logout"  
 android:textColor="@color/secondary\_color"  
 android:textSize="18dp" />  
 </LinearLayout>  
  
</RelativeLayout>

**Add Article[XML]:-**

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="@color/primary\_color"  
 tools:context=".AddArticlePage"  
 android:paddingTop="50dp"  
 >  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:textColor="@color/secondary\_color"  
 android:text="A d d A r t i c l e"  
 android:textAllCaps="true"  
 android:textAlignment="center"  
 android:textSize="30dp"  
 android:layout\_marginTop="30dp"  
 tools:ignore="MissingConstraints" />  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:textColor="@color/secondary\_color"  
 android:text="Article Title"  
 android:textAlignment="center"  
 android:textSize="20dp"  
 android:layout\_marginTop="90dp"  
 tools:ignore="MissingConstraints" />  
  
 <EditText  
 android:id="@+id/articleTitle"  
 android:layout\_width="300dp"  
 android:layout\_height="40dp"  
 android:padding="10dp"  
 android:textColor="@color/secondary\_color"  
 android:background="@drawable/rounded\_corner"  
 android:hint="Enter title here..."  
 android:layout\_marginTop="120dp"  
 android:layout\_marginRight="50dp"  
 android:layout\_marginLeft="50dp"  
 tools:ignore="MissingConstraints" />  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:textColor="@color/secondary\_color"  
 android:text="Article Paragraph A"  
 android:textAlignment="center"  
 android:textSize="20dp"  
 android:layout\_marginTop="170dp"  
 tools:ignore="MissingConstraints" />  
  
 <EditText  
 android:id="@+id/articleParaA"  
 android:layout\_width="300dp"  
 android:layout\_height="40dp"  
 android:padding="10dp"  
 android:textColor="@color/secondary\_color"  
 android:background="@drawable/rounded\_corner"  
 android:hint="Enter paragraph here..."  
 android:layout\_marginTop="200dp"  
 android:layout\_marginRight="50dp"  
 android:layout\_marginLeft="50dp"  
 tools:ignore="MissingConstraints" />  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:textColor="@color/secondary\_color"  
 android:text="Article Paragraph B"  
 android:textAlignment="center"  
 android:textSize="20dp"  
 android:layout\_marginTop="250dp"  
 tools:ignore="MissingConstraints" />  
  
 <EditText  
 android:id="@+id/articleParaB"  
 android:layout\_width="300dp"  
 android:layout\_height="40dp"  
 android:padding="10dp"  
 android:textColor="@color/secondary\_color"  
 android:background="@drawable/rounded\_corner"  
 android:hint="Enter paragraph here..."  
 android:layout\_marginTop="280dp"  
 android:layout\_marginRight="50dp"  
 android:layout\_marginLeft="50dp"  
 tools:ignore="MissingConstraints" />  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:textColor="@color/secondary\_color"  
 android:text="Article Type"  
 android:textAlignment="center"  
 android:textSize="20dp"  
 android:layout\_marginTop="330dp"  
 tools:ignore="MissingConstraints" />  
  
 <Spinner  
 android:id="@+id/articleType"  
 android:layout\_width="300dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/articleParaB"  
 android:layout\_centerHorizontal="true"  
 android:textColor="@color/secondary\_color"  
 android:layout\_marginTop="50dp"  
 android:background="@drawable/rounded\_corner"  
 android:padding="10dp"  
 android:spinnerMode="dropdown"  
 android:entries="@array/article\_categories"  
 android:prompt="@string/select\_category"  
 tools:ignore="MissingConstraints" />  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:textColor="@color/secondary\_color"  
 android:text="Article Image"  
 android:textAlignment="center"  
 android:textSize="20dp"  
 android:layout\_marginTop="440dp"  
 tools:ignore="MissingConstraints" />  
  
 <LinearLayout  
 android:id="@+id/addImage"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="30dp"  
 android:layout\_marginTop="480dp"  
 android:layout\_marginRight="30dp"  
 android:background="@drawable/rounded\_corner"  
 android:orientation="horizontal"  
 android:padding="5dp"  
 >  
  
 <ImageButton  
 android:layout\_width="wrap\_content"  
 android:layout\_height="50dp"  
 android:background="@color/button\_bg"  
 android:paddingRight="15dp"  
 android:paddingLeft="20dp"  
 android:contentDescription="Like button"  
 android:src="@drawable/add\_image" />  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center\_vertical"  
 android:layout\_marginStart="10dp"  
 android:text="Choose Image"  
 android:textColor="@color/secondary\_color"  
 android:textSize="18dp" />  
 </LinearLayout>  
  
  
 <LinearLayout  
 android:id="@+id/addArticle"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="30dp"  
 android:layout\_marginTop="600dp"  
 android:layout\_marginRight="30dp"  
 android:background="@drawable/rounded\_corner"  
 android:orientation="horizontal"  
 android:padding="5dp"  
 >  
  
 <ImageButton  
 android:layout\_width="wrap\_content"  
 android:layout\_height="50dp"  
 android:background="@color/button\_bg"  
 android:paddingRight="15dp"  
 android:paddingLeft="20dp"  
 android:contentDescription="Like button"  
 android:src="@drawable/add\_article" />  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center\_vertical"  
 android:layout\_marginStart="10dp"  
 android:text="Add Article"  
 android:textColor="@color/secondary\_color"  
 android:textSize="18dp" />  
 </LinearLayout>  
  
 <LinearLayout  
 android:id="@+id/goBackToHome"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="30dp"  
 android:layout\_marginTop="700dp"  
 android:layout\_marginRight="30dp"  
 android:background="@drawable/rounded\_corner"  
 android:orientation="horizontal"  
 android:padding="5dp"  
 >  
  
 <ImageButton  
 android:layout\_width="wrap\_content"  
 android:layout\_height="50dp"  
 android:background="@color/button\_bg"  
 android:paddingRight="15dp"  
 android:paddingLeft="20dp"  
 android:contentDescription="Like button"  
 android:src="@drawable/home" />  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center\_vertical"  
 android:layout\_marginStart="10dp"  
 android:text="Back To Home Page"  
 android:textColor="@color/secondary\_color"  
 android:textSize="18dp" />  
 </LinearLayout>  
  
</RelativeLayout>

**Add Article[JAVA]:-**

package com.example.project\_magazine;  
  
import android.content.Intent;  
import android.graphics.Bitmap;  
import android.net.Uri;  
import android.os.Bundle;  
import android.provider.MediaStore;  
import android.view.View;  
import android.widget.EditText;  
import android.widget.LinearLayout;  
import android.widget.Spinner;  
import android.widget.Toast;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
  
import java.io.ByteArrayOutputStream;  
import java.io.IOException;  
  
public class AddArticlePage extends AppCompatActivity {  
 private static final int *GALLERY\_REQUEST\_CODE* = 100;  
 private Uri photoFilePath;  
 private Bitmap photoToStore;  
 private byte[] byteArray;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.*enable*(this);  
 setContentView(R.layout.*activity\_add\_article\_page*);  
  
 LinearLayout goToBackToHomeHandler = (LinearLayout) findViewById(R.id.*goBackToHome*);  
 goToBackToHomeHandler.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Intent intent = new Intent(AddArticlePage.this, MainActivity.class);  
 startActivity(intent);  
 }  
 });  
  
 LinearLayout chooseImageHandler = (LinearLayout) findViewById(R.id.*addImage*);  
 chooseImageHandler.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Intent photoPickerIntent = new Intent(Intent.*ACTION\_PICK*);  
 photoPickerIntent.setType("image/\*");  
 startActivityForResult(photoPickerIntent, *GALLERY\_REQUEST\_CODE*);  
 }  
 });  
  
 LinearLayout addArticle = (LinearLayout) findViewById(R.id.*addArticle*);  
 addArticle.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 try {  
 ECO\_ECO\_DB DatabaseObject = new ECO\_ECO\_DB(getApplicationContext());  
 EditText articleTitleEditText = findViewById(R.id.*articleTitle*);  
 EditText articleParaAEditText = findViewById(R.id.*articleParaA*);  
 EditText articleParaBEditText = findViewById(R.id.*articleParaB*);  
 Spinner articleTypeSpinner = findViewById(R.id.*articleType*);  
 String articleTitle = articleTitleEditText.getText().toString();  
 String articleParaA = articleParaAEditText.getText().toString();  
 String articleParaB = articleParaBEditText.getText().toString();  
 String articleType = articleTypeSpinner.getSelectedItem().toString();  
 boolean result = DatabaseObject.insertArticle("qarq90", articleTitle, articleParaA, articleParaB, byteArray, articleType);  
 if (result) {  
 Toast.*makeText*(getApplicationContext(), "Article Stored", Toast.*LENGTH\_SHORT*).show();  
 } else {  
 Toast.*makeText*(getApplicationContext(), "Failed", Toast.*LENGTH\_LONG*).show();  
 }  
 } catch (Exception e) {  
 Toast.*makeText*(getApplicationContext(), e.getMessage(), Toast.*LENGTH\_LONG*).show();  
 }  
 }  
 });  
 }  
  
 @Override  
 protected void onActivityResult(int requestCode, int resultCode, Intent data) {  
 super.onActivityResult(requestCode, resultCode, data);  
 if (requestCode == GALLERY\_REQUEST\_CODE && resultCode == RESULT\_OK && data != null && data.getData() != null) {  
 photoFilePath = data.getData();  
 try {  
 photoToStore = MediaStore.Images.Media.getBitmap(getContentResolver(), photoFilePath);  
 ByteArrayOutputStream stream = new ByteArrayOutputStream();  
 photoToStore.compress(Bitmap.CompressFormat.PNG, 100, stream);  
 byteArray = stream.toByteArray();  
 } catch (IOException e) {  
 Toast.makeText(getApplicationContext(), e.getMessage(), Toast.LENGTH\_LONG).show();  
 }  
 }  
 }  
}

**Main[JAVA]:-**

package com.example.project\_magazine;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.LinearLayout;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.*enable*(this);  
 setContentView(R.layout.*activity\_main*);  
  
 LinearLayout goToEntertainmentHandler = (LinearLayout) findViewById(R.id.*goToEntertainment*);  
 goToEntertainmentHandler.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Intent intent = new Intent(MainActivity.this, EntertainmentPage.class);  
 startActivity(intent);  
 }  
 });  
  
 LinearLayout goToSportsHandler = (LinearLayout) findViewById(R.id.*goToSports*);  
 goToSportsHandler.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Intent intent = new Intent(MainActivity.this, SportsPage.class);  
 startActivity(intent);  
 }  
 });  
  
 LinearLayout goToGamesHandler = (LinearLayout) findViewById(R.id.*goToGames*);  
 goToGamesHandler.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Intent intent = new Intent(MainActivity.this, GamesPage.class);  
 startActivity(intent);  
 }  
 });  
  
 LinearLayout goToFashionHandler = (LinearLayout) findViewById(R.id.*goToFashion*);  
 goToFashionHandler.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Intent intent = new Intent(MainActivity.this, FashionPage.class);  
 startActivity(intent);  
 }  
 });  
  
 LinearLayout goToAddArticleHandler = (LinearLayout) findViewById(R.id.*goToAddArticle*);  
 goToAddArticleHandler.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Intent intent = new Intent(MainActivity.this, AddArticlePage.class);  
 startActivity(intent);  
 }  
 });  
  
 LinearLayout goToProfileHandler = (LinearLayout) findViewById(R.id.*goToProfile*);  
 goToProfileHandler.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Intent intent = new Intent(MainActivity.this, ProfilePage.class);  
 startActivity(intent);  
 }  
 });  
  
 LinearLayout goToAuthHandler = (LinearLayout) findViewById(R.id.*goToAuth*);  
 goToAuthHandler.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Intent intent = new Intent(MainActivity.this, AuthPage.class);  
 startActivity(intent);  
 }  
 });  
 }  
}

**Database[JAVA]:-**

package com.example.project\_magazine;  
  
import android.content.ContentValues;  
import android.content.Context;  
import android.database.Cursor;  
import android.database.sqlite.SQLiteDatabase;  
import android.database.sqlite.SQLiteOpenHelper;  
  
public class ECO\_ECO\_DB extends SQLiteOpenHelper {  
 public static final String *DATABASE\_NAME* = "eco\_eco\_database";  
 public static final Integer *DATABASE\_VERSION* = 1;  
 public static final String *TABLE\_USERS* = "USERS";  
 public static final String *TABLE\_ARTICLES* = "ARTICLES";  
 public static final String *USERS\_COL\_1* = "ID";  
 public static final String *USERS\_COL\_2* = "EMAIL";  
 public static final String *USERS\_COL\_3* = "PASSWORD";  
 public static final String *USERS\_COL\_4* = "PHONE\_NUMBER";  
 public static final String *USERS\_COL\_5* = "USERNAME";  
 public static final String *ARTICLE\_AUTHOR* = "ARTICLE\_AUTHOR";  
 public static final String *ARTICLES\_TITLE* = "ARTICLE\_TITLE";  
 public static final String *ARTICLE\_PARA\_A* = "ARTICLE\_PARA\_A";  
 public static final String *ARTICLE\_PARA\_B* = "ARTICLE\_PARA\_B";  
 public static final String *ARTICLES\_IMAGE* = "ARTICLE\_IMAGE";  
 public static final String *ARTICLES\_TYPE* = "ARTICLE\_TYPE";  
  
 public ECO\_ECO\_DB(Context context) {  
 super(context, *DATABASE\_NAME*, null, *DATABASE\_VERSION*);  
 }  
  
 @Override  
 public void onCreate(SQLiteDatabase db) {  
 String createUserTableQuery = "CREATE TABLE " + *TABLE\_USERS* + " (" +  
 *USERS\_COL\_1* + " INTEGER PRIMARY KEY AUTOINCREMENT," +  
 *USERS\_COL\_2* + " TEXT," +  
 *USERS\_COL\_3* + " TEXT," +  
 *USERS\_COL\_4* + " TEXT," +  
 *USERS\_COL\_5* + " TEXT)";  
  
 db.execSQL(createUserTableQuery);  
  
 String createArticlesTableQuery = "CREATE TABLE " + *TABLE\_ARTICLES* + " (" +  
 *USERS\_COL\_1* + " INTEGER PRIMARY KEY AUTOINCREMENT," +  
 *ARTICLE\_AUTHOR* + " TEXT," +  
 *ARTICLES\_TITLE* + " TEXT," +  
 *ARTICLE\_PARA\_A* + " TEXT," +  
 *ARTICLE\_PARA\_B* + " TEXT," +  
 *ARTICLES\_TYPE* + " TEXT," +  
 *ARTICLES\_IMAGE* + " BLOB)";  
  
 db.execSQL(createArticlesTableQuery);  
 }  
  
 @Override  
 public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {  
 db.execSQL("DROP TABLE IF EXISTS " + *TABLE\_USERS*);  
 onCreate(db);  
 db.execSQL("DROP TABLE IF EXISTS " + *TABLE\_ARTICLES*);  
 onCreate(db);  
 }  
  
 public boolean insertUser(String email, String password, String phoneNumber, String username) {  
 SQLiteDatabase db = this.getWritableDatabase();  
 ContentValues contentValues = new ContentValues();  
 contentValues.put(*USERS\_COL\_2*, email);  
 contentValues.put(*USERS\_COL\_3*, password);  
 contentValues.put(*USERS\_COL\_4*, phoneNumber);  
 contentValues.put(*USERS\_COL\_5*, username);  
 long result = db.insert(*TABLE\_USERS*, null, contentValues);  
 return result != -1;  
 }  
  
 public Cursor checkIfUserExists() {  
 SQLiteDatabase db = this.getReadableDatabase();  
 return db.rawQuery("SELECT \* FROM " + *TABLE\_USERS*, null);  
 }  
  
 public boolean insertArticle(String articleAuthor, String articleTitle, String articleParaA, String articleParaB, byte[] articleImage, String articleType) {  
 SQLiteDatabase db = this.getWritableDatabase();  
 ContentValues contentValues = new ContentValues();  
 contentValues.put(*ARTICLE\_AUTHOR*, articleAuthor);  
 contentValues.put(*ARTICLES\_TITLE*, articleTitle);  
 contentValues.put(*ARTICLE\_PARA\_A*, articleParaA);  
 contentValues.put(*ARTICLE\_PARA\_B*, articleParaB);  
 contentValues.put(*ARTICLES\_TYPE*, articleType);  
 contentValues.put(*ARTICLES\_IMAGE*, articleImage);  
 long result = db.insert(*TABLE\_ARTICLES*, null, contentValues);  
 return result != -1;  
 }  
  
 public Cursor getArticles(String type) {  
 SQLiteDatabase db = this.getWritableDatabase();  
 String query = "SELECT \* FROM " + *TABLE\_ARTICLES*;  
 if (type != null && !type.isEmpty()) {  
 query += " WHERE " + *ARTICLES\_TYPE* + " = ?";  
 }  
 return db.rawQuery(query, (type != null && !type.isEmpty()) ? new String[]{type} : null);  
 }  
  
 public Cursor fetchUser(String email, String password) {  
 SQLiteDatabase db = this.getReadableDatabase();  
 String[] columns = {*USERS\_COL\_2*, *USERS\_COL\_4*, *USERS\_COL\_5*};  
 String selection = *USERS\_COL\_2* + " = ? AND " + *USERS\_COL\_3* + " = ?";  
 String[] selectionArgs = {email, password};  
 return db.query(*TABLE\_USERS*, columns, selection, selectionArgs, null, null, null);  
 }  
}

**Entertainment[JAVA]:-**

package com.example.project\_magazine;  
  
import android.content.Intent;  
import android.database.Cursor;  
import android.graphics.Bitmap;  
import android.graphics.BitmapFactory;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.ImageView;  
import android.widget.LinearLayout;  
import android.widget.RelativeLayout;  
import android.widget.ScrollView;  
import android.widget.TextView;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class EntertainmentPage extends AppCompatActivity {  
  
 RelativeLayout EntertainmentMain;  
 ScrollView SC;  
 LinearLayout articleContainerLayout;   
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.*enable*(this);  
 setContentView(R.layout.*activity\_entertainment\_page*);  
  
 EntertainmentMain = findViewById(R.id.*EntertainmentMain*);  
 articleContainerLayout = findViewById(R.id.*articleContainerLayout*);  
  
 LinearLayout goToBackToHomeHandler = findViewById(R.id.*goBackToHome*);  
 goToBackToHomeHandler.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Intent intent = new Intent(EntertainmentPage.this, MainActivity.class);  
 startActivity(intent);  
 }  
 });  
 }  
  
 protected void onResume() {  
 super.onResume();  
 displayArticles();  
 }  
  
 public void displayArticles() {  
 ECO\_ECO\_DB DatabaseObject = new ECO\_ECO\_DB(getApplicationContext());  
 Cursor result = DatabaseObject.getArticles("Entertainment");  
  
 while (result.moveToNext()) {  
 RelativeLayout articleCard = (RelativeLayout) getLayoutInflater().inflate(R.layout.*activity\_article\_card*, null);  
 ImageView articleImage = articleCard.findViewById(R.id.*articleImage*);  
 TextView articleTitle = articleCard.findViewById(R.id.*articleTitle*);  
 TextView articleParaA = articleCard.findViewById(R.id.*articleParaA*);  
 TextView articleParaB = articleCard.findViewById(R.id.*articleParaB*);  
 TextView articleAuthor = articleCard.findViewById(R.id.*articleAuthor*);  
  
 articleTitle.setText(result.getString(result.getColumnIndexOrThrow("ARTICLE\_TITLE")));  
 articleParaA.setText(result.getString(result.getColumnIndexOrThrow("ARTICLE\_PARA\_A")));  
 articleParaB.setText(result.getString(result.getColumnIndexOrThrow("ARTICLE\_PARA\_B")));  
 articleAuthor.setText("Article Author : " + result.getString(result.getColumnIndexOrThrow("ARTICLE\_AUTHOR")));  
  
 byte[] imageData = result.getBlob(result.getColumnIndexOrThrow("ARTICLE\_IMAGE"));  
 Bitmap bitmap = BitmapFactory.*decodeByteArray*(imageData, 0, imageData.length);  
 articleImage.setImageBitmap(bitmap);  
  
 articleContainerLayout.addView(articleCard);   
 }  
 }  
}

**OUTPUT:-**

1. **Skills developed/ Learning outcomes**

* Identifying: Identifying the problem and cause of problem in the area related and prepare project proposals before starting the project.
* Derive: Derive different possible solutions creatively.
* Data Collection: Collect relevant data from different sources (books/the internet/the market/suppliers/experts and others through surveys/interviews)
* Designing- Designing microproject with minimum required resources and at low cost.
* Teamwork- Learning to work in team and boost individual confidence.
* Time management- Completion of microproject as scheduled.
* Technical writing- Preparing a report of proposed plan and report.
* Presentation and communication skills: Giving working model presentation of the micro project.
* Confidence: Confidently, answer the questions asked about the project.
* The basic concepts and principles of web development technologies such as HTML, CSS, and JavaScript along with MAD were understood.
* Learned to design and implement a user interface that is attractive, organized, and easy to use.

1. **Applications of ther microproject**
2. Digital Publishing: News Apps act as dynamic digital platforms, showcasing curated articles with a user-friendly interface for seamless navigation.
3. Global Content: Embracing a diverse range of global news, the platform transcends geographical boundaries, offering a rich tapestry of content from around the world.
4. Community Building: News Apps foster niche communities, uniting individuals with shared interests and promoting meaningful engagement.

**Micro Project Evaluation Sheet**

Name of student: Abdurrahman Qureshi Enrollment no: 2100020112

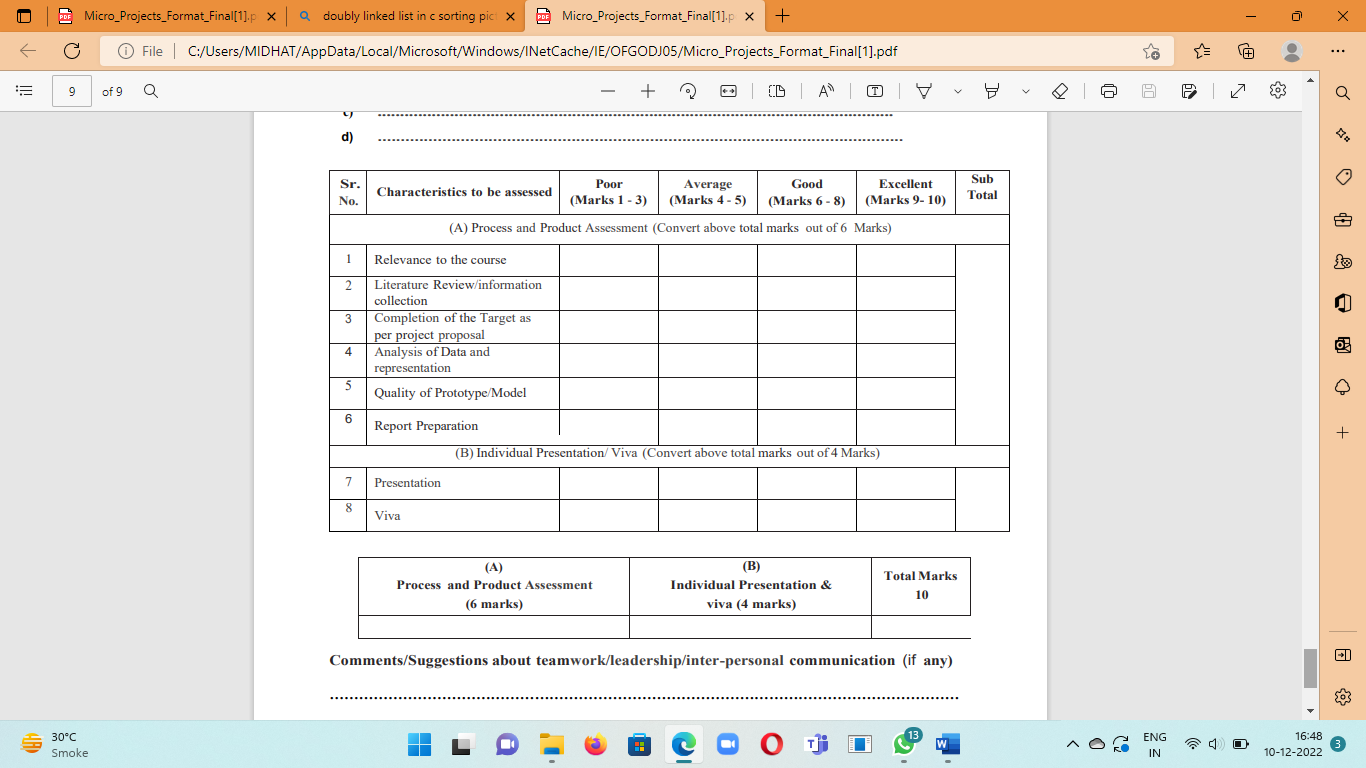
Name of programme: Computer Engineering Semester: 6th

Course title: MOBILE APPLICATION DEVELOPMENT Code: 22619

Title of microproject: News App

Course outcomes achieved:

* + Interpret features of Android operating system.
  + Configure Android environment and development tools.
  + Develop rich user Interfaces by using layouts and controls.
  + Use User Interface components for android application development.
  + Create Android application using database.



**Comments/Suggestions about teamwork/leadership/interpersonal communication**

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**Name and designation of teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Dated signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Micro Project Evaluation Sheet**

Name of student: Saad Ansari Enrollment no: 2100020102

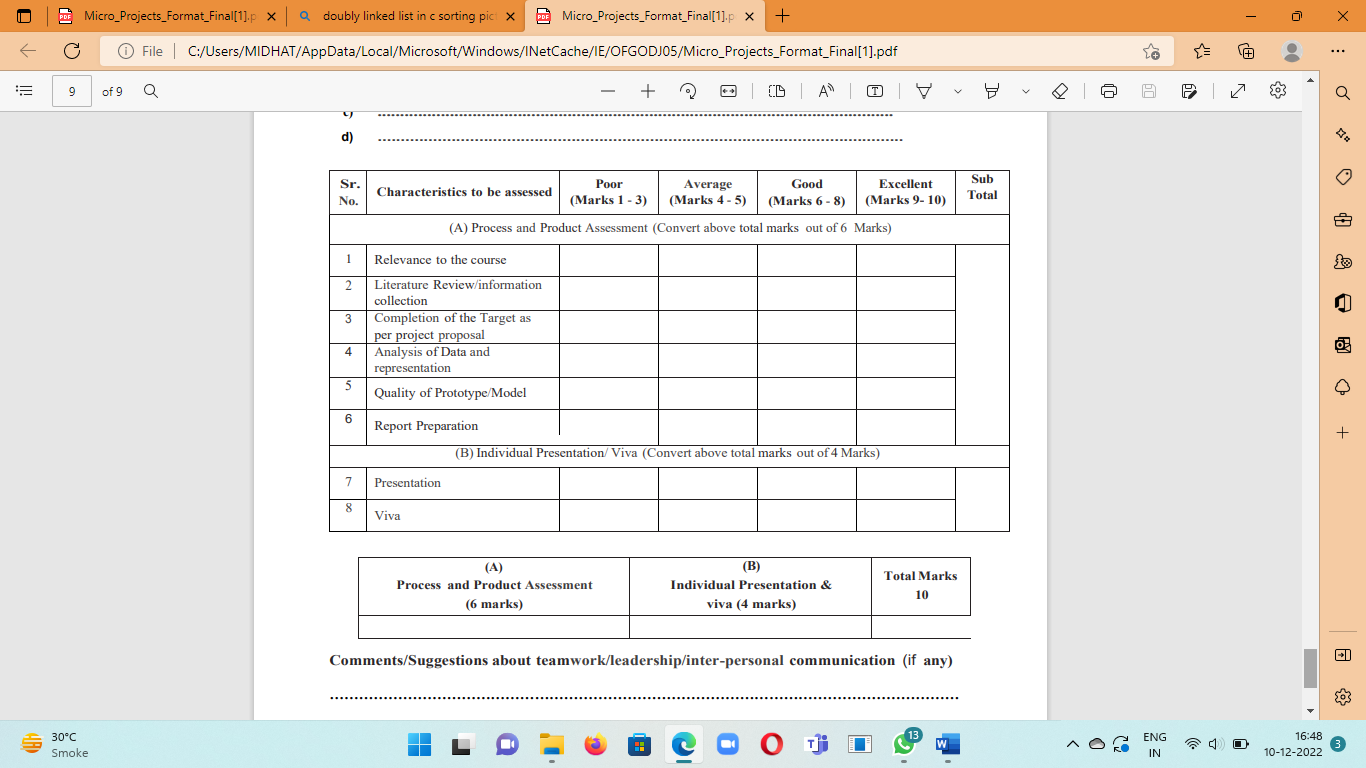
Name of programme: Computer Engineering Semester: 6th

Course title: MOBILE APPLICATION DEVELOPMENT Code: 22619

Title of microproject: News App

Course outcomes achieved:

* + Interpret features of Android operating system.
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**Comments/Suggestions about teamwork/leadership/interpersonal communication**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Name and designation of teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Dated signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Micro Project Evaluation Sheet**

Name of student:Arya More Enrollment no: 2100020097

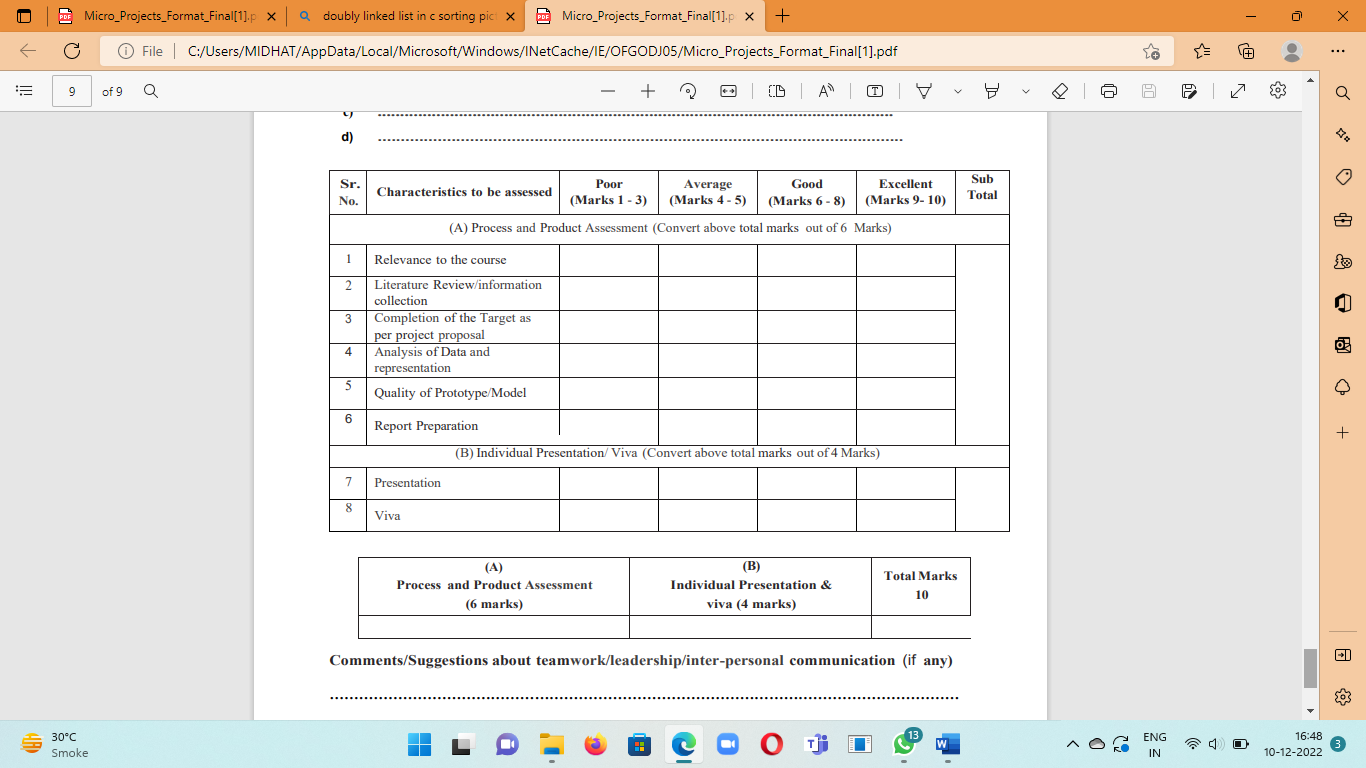
Name of programme: Computer Engineering Semester: 6th

Course title: MOBILE APPLICATION DEVELOPMENT Code: 22619

Title of microproject: News App

Course outcomes achieved:

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**Comments/Suggestions about teamwork/leadership/interpersonal communication**

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**Name and designation of teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Dated signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Micro Project Evaluation Sheet**

Name of student:Adnan Kazi Enrollment no: 2100020117

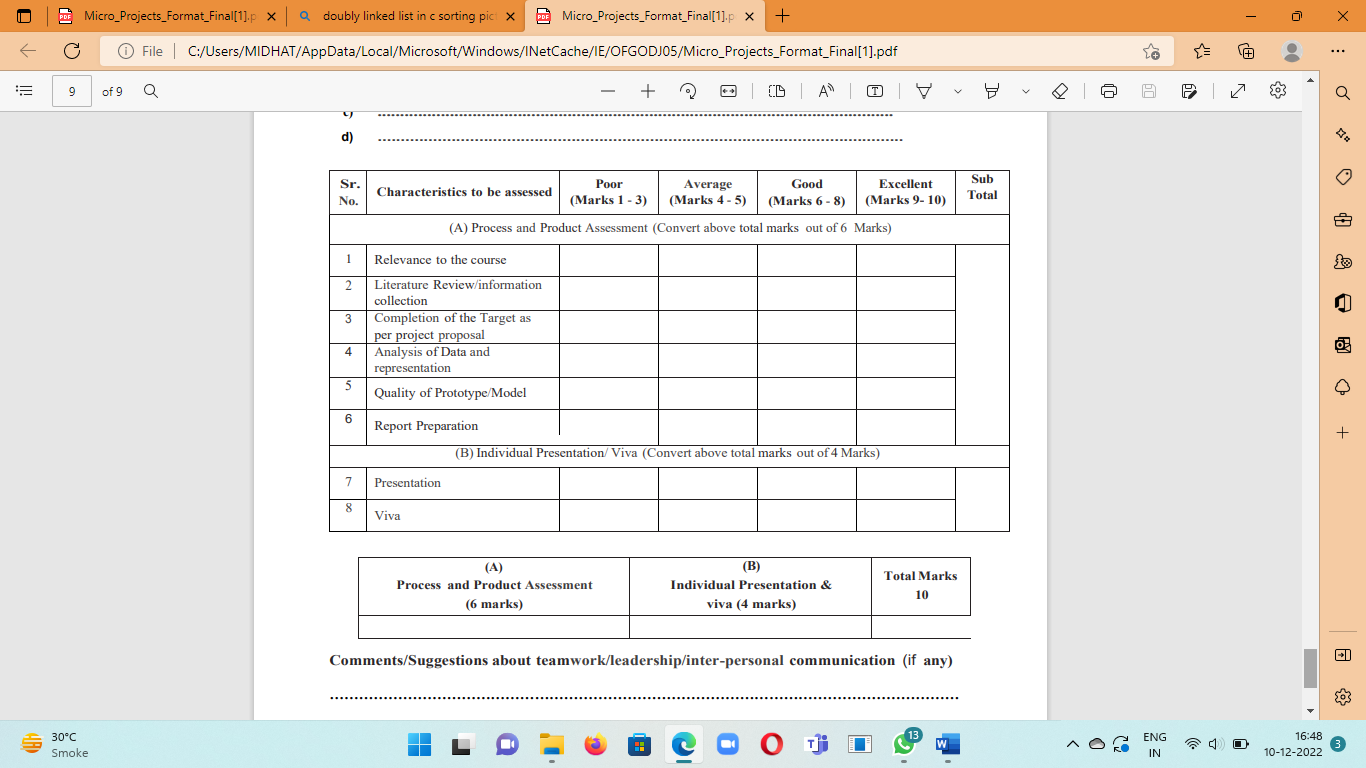
Name of programme: Computer Engineering Semester: 6th

Course title: MOBILE APPLICATION DEVELOPMENT Code: 22619

Title of microproject: News App

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**Comments/Suggestions about teamwork/leadership/interpersonal communication**

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**Name and designation of teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Dated signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**