

**DEPARTMENT OF COMPUTER & SOFTWARE ENGINEERING**

**COLLEGE OF E&ME, NUST, RAWALPINDI**

**Mobile App Dev**

**Project Report**

**SUBMITTED TO:**

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**Introduction:**

Our project is a Flutter app that implements photogrammetry on mobile phones. It acquires photos from user and returns a 3D model of the object in the photos, in real-time.

Photogrammetry is a computer engineering technique that plays a vital role in extracting three-dimensional (3D) information from two-dimensional (2D) images. Photogrammetry algorithms rebuild the 3D structure and spatial relationships of objects inside the photos by examining several images taken from various perspectives. Applications for it could be found in a variety of fields, including engineering, architecture, the protection of cultural assets, virtual reality, and many more.

**Design:**

Our chosen software development methodology for developing the Flutter app is Agile. Agile technique is particularly suited for creating Flutter apps because it promotes adaptability, flexibility, and iterative development, all of which fit with the dynamic nature of creating mobile apps.

In the design stage, we focused on creating a simple and easy-to-use user interface (UI) for our app. We utilized Flutter’s widget system and followed Material Design guidelines to ensure a consistent and user-friendly UI. Wireframes and prototypes were created to validate the UI design and gather feedback from potential users.

**Demo Video:**

<https://drive.google.com/file/d/1ozNHuWl6wKjgBMQFvR-_2QCalISimDJj/view?usp=sharing>

**Working:**

All screens of the app are listed below.

|  |  |
| --- | --- |
| **Login Screen** |  |
| Main screen |  |
| Camera screen |  |
| **Upload Images** |  |
|  |  |
| **Model Gallery** |  |
| **Model Viewer** |  |
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