

# FYP Proposal Submission Form – FA’22 & onwards

FYP/CUI/SE-WAH/023

**\* Project Title:**

(150 characters)

"NeuraNest Analyzer"

**\* Which real world problem shall be solved by this FYP?**

(800 characters)

"This FYP tackles the challenges of deciphering vast interpersonal communications in WhatsApp, gauging public sentiment through comments, and comprehending visual content nuances. It stands as a solution to the overwhelming influx of data, making sense of patterns for better personal and professional decision-making."

**Detail of Project Members:**

**1:** CIIT/FA20-BSE-132/WAH

Saeed Ahmad Qamar

**2:** CIIT/FA20-BSE-138/WAH

Muhammad Zain ul Abideen

**Supervised By:**

Mam Seema Islam

**Project Streams:**

☐ Web-based FYPs

☐ Desktop Applications

☒ Mobile Apps FYPs

☐ Game-based FYPs

☐ Hardware-based

**\* Project Description:**

(3000 characters)

**What is the overall working/summary of this FYP?** (1000 characters)

"This FYP is a mobile application developed using Flutter, encompassing three pivotal modules geared towards data interpretation and analysis. The first, the WhatsApp Chat Analyzer, allows users to upload exported chat files, undergoes data preprocessing, and provides extensive statistics on individual interactions and overall message patterns. The second module is a YouTube Comment Analyzer where users input a video link; the system performs sentiment analysis, categorizing comments into positive, negative, and neutral sentiments, and offers recommendations based on feedback. Lastly, the Image Analyzer module processes and classifies images, generating results that decipher and categorize visual content. Collectively, this project serves as a multi-faceted tool for understanding and analyzing varied types of data on mobile platforms."

(a) Write name and detail of each module in your FYP.

(a) WhatsApp Chat Analyzer:

Name:

WhatsApp Chat Analyzer

Detail:

This module allows users to upload their exported WhatsApp chat files. Once uploaded, the system undergoes data preprocessing to clean and structure the chat data. It provides an extensive analysis which includes statistics on individual interactions, message patterns, frequency of messages, and even specific statistics related to each participant in the chat. This detailed analysis aids users in understanding the dynamics and content of their conversations.

(b) YouTube Comment Analyzer:

Name:

YouTube Comment Analyzer

Detail:

Through this module, users can input a specific YouTube video link. The system will then fetch comments from that video and conduct a sentiment analysis using Natural language processing (NLP). Comments will be categorized into three primary sentiments: positive, negative, and neutral. Post-analysis, a comprehensive report will be generated, providing a breakdown of the sentiments and offering suggestions or recommendations based on the feedback from the comments.

(c) Image Analyzer:

Name:

Image Analyzer

Detail:

The Image Analyzer module allows users to upload images. These images undergo a series of processing techniques to classify and understand the content within. The results generated provide a detailed deciphering of the image, categorizing visual content and possibly identifying objects, scenes, or patterns within the image. This helps users understand and categorize their visual data effectively.

1: Which module shall be developed by student-1?

(500 characters)

"Saeed Ahmad, will be responsible for developing the YouTube Comment Analyzer module. In addition to this, he will handle the Flutter front-end development and API integration tasks, ensuring seamless user experience and efficient data processing within the application."

2: Which module shall be developed by student-2?

(500 characters)

"Zain ul Abiden will be responsible for the development of the other two modules: the WhatsApp Chat Analyzer and the Image Analyzer. Leveraging his expertise, he will design, implement, and optimize both modules to ensure they deliver accurate analysis and a seamless user experience within the application."

(c) Were similar FYPs already developed on the same topic in your department?

☐ Yes ☒ No

(d-2) Mention below the three (3) new, but main, functionalities you are adding to this FYP. (600 characters)

1. Chat Participant Metrics

2. Sentiment Distribution Report

3. Visual Content Categorization

Development Environment:

- Tools (e.g.Dot Net platform, Android Studio,**
- Xcode, Swift, Ionic, Xamarin, PhpStorm
  - /Php Laravel, WordPress, Maya, Unity 3D,
  - Photoshop, MATLAB, ns-2, Python,
  - Java EE, Java ME, NetBeans, Java Script,
  - Node.js, Angular.js, JSON, OpenCV)
  - **DBMS** (e.g. SQL Server, MySQL, SQLite,
  - Oracle, Teradata)
  - **Platform** (e.g. Windows, Linu

Select tools, DBMS and platform as per above stream that you have chosen.

**Tool(s):**  
1) Android Studio  
2)Flutter  
3)Python  
4)Flask  
5)VSCODE  
**DBMS:**  
MySQL, Firebase  
**Platform:**  
Windows

**Evaluation Criteria for 7<sup>th</sup> Semester:**

(Week 14 - 16)

1. SRDS (Functional & Non-functional requirements, Use case diagram, Sequence diagram, Class diagram, Entity relationship diagram / Detailed hardware configuration)
2. Implementation of ONE major use case ( $\geq 30\%$  FYP work), which does not include login/logout.
3. Interface with complete functionality of major use case / In case of hardware, provide configuration of major use case functionality.

**Evaluation Criteria for Internal 8<sup>th</sup> Viva:**

(Week 12 & 13)

1. Implementation of all use cases ( $\geq 90\%$  FYP work)
2. Project in running and working form as per Use case, Class and Sequence diagrams as mentioned in SRDS
3. Initial FYP report
4. Deployment
  - Web: Your website must be online on any free/paid hosting service
  - Mobile App: Your app must be in APK/iOS form so that it can be installed
  - Gaming: Your game must be in executable form so that it can be installed
  - Desktop Application: Your application must be in executable form so that it can be installed
  - Hardware: Your final product must be in proper casing and should give look and feel of sellable item