# Project Title:

Text to Video Generator

(150 characters)

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# Which real world problem shall be solved by this FYP?

The "Text to Video Generator" addresses content creation bottlenecks by automating the conversion of text into videos. This reduces the time, cost, and technical skills needed for video production. It simplifies video creation for users with limited editing skills and facilitates quick video generation for sectors like education, marketing, and news, improving communication and engagement.

(800 characters)

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**1:** CIIT/FA21-BCS-066/WAH Hussain Ali

**2:** CIIT/FA21-BCS-080/WAH Ali Shan

**Detail of Project Members:**

Ayesha Naeem

**Supervised By:**

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**Project Streams:**

Web-based FYPs Desktop Applications

Mobile Apps FYPs Game-based FYPs

Hardware-based

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# Project Description:

(3000 characters)

**Note:** Text to Video Generation and multimedia output shall be the default functionalities of Mobile FYPs.

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

The "Text to Video Generator" converts written text into video content automatically. Users input text, and the system processes it using Natural Language Processing (NLP) to understand the context, identify keywords, and generate corresponding video elements such as scenes, backgrounds, and animations. The system may utilize predefined templates or dynamic video rendering techniques to match the text with appropriate visuals. Additionally, it can incorporate voiceover narration or background music based on user preferences. The output is a fully generated video that aligns with the input text, providing a quick and accessible way to produce videos without the need for manual editing or technical expertise.

# Write name and detail of each module in your FYP.

1. **Text Input Module**: Allows text entry and editing for video creation.
2. **NLP Module**: Analyzes text to extract key details.
3. **Video Generation Module**: Creates video content from the processed text.
4. **Voiceover and Audio Module**: Adds narration and background audio to the video.
5. **Preview and Editing Module**: Lets users preview and adjust the video.
6. **Export and Sharing Module**: Enables saving and sharing of the final video.

# Member-wise Module Information

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

(500 characters)

1. Text Input Module.
2. NLP Module.
3. Video Generation Module.

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

(500 characters)

1. Voiceover and Audio Module.
2. Preview and Editing Module
3. Export and sharing module.

# Were similar FYPs already developed on the same topic in your department?

Yes No

# (d-1) Copy name(s) of latest one or two similar FYPs from RMS student console and paste below. (150 characters)

Voxie poxie

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

1. Dynamic Visual Matching

2. Real-Time Voiceover Generation

3. Interactive Editing Tools

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# Development Environment:

* **Tools**: Android Studio, Xcode, Kotlin, Swift, TensorFlow Lite, Google Cloud Natural Language API, OpenCV, FFmpeg, Google Text-to-Speech, Amazon Polly
* **DBMS**: Firebase Realtime Database, SQLite
* **Platform**: Platform: Windows, Linux

# - Tools (e.g. Python, TensorFlow, NLP Libraries (e.g., Dialogflow, GPT-based models), Flutter, IDEs (e.g., Visual Studio Code, PyCharm)

# - DBMS (e.g. Firebase, SQLite (for storing user data, conversation logs, and feedback)

- Platform (e.g. Cross-platform (Android Studio for mobile development, web platforms

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# Evaluation Criteria for 7th 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 (>=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 8th Viva:

(Week 12 & 13)

* 1. Implementation of all use cases (>=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
     + Gamimg: 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