PROJECT DESIGN PHASE

## Data Flow Diagram & User Stories

Date	03 November 2022
Team ID	Team - 591848
Project Name	**Image Caption Generation**
Maximum Marks	4 Marks

Data flow diagram:
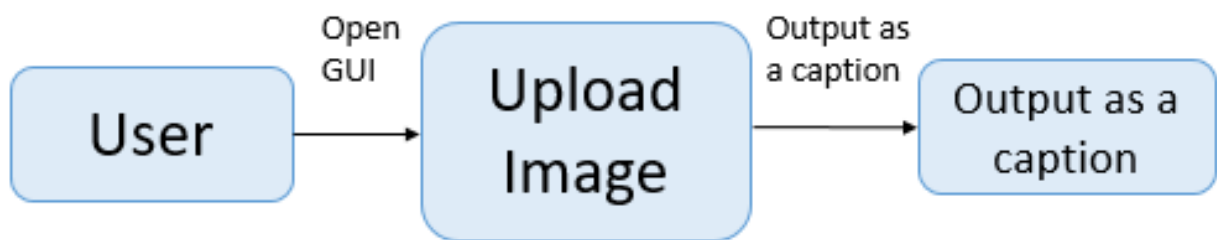
Data Flow Diagram Level 0

Data Flow Diagram Level 1

User → Upload Image → CNN model → LSTM model → Caption

- Open GUI
- Detect Objects in image
- Make captions
- Output as a caption
- Training the model for better captions

Training dataset
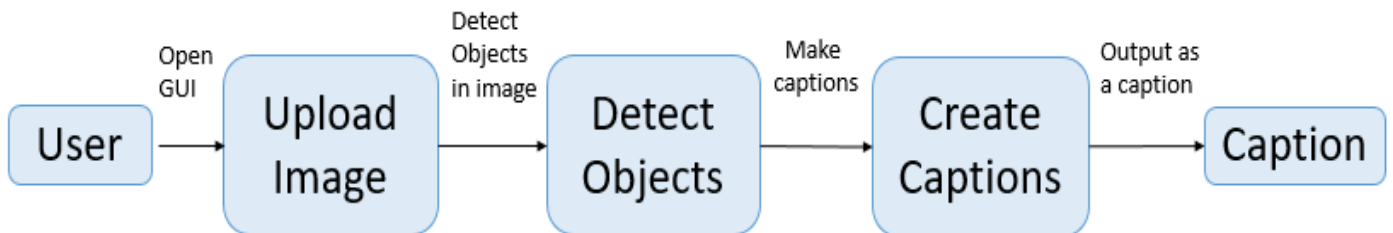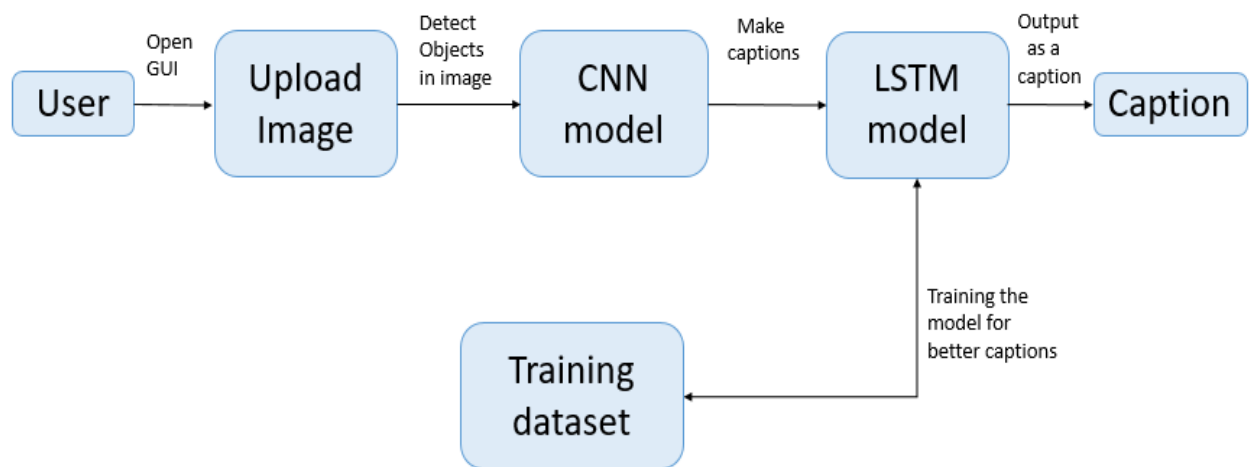
Final Data Flow Diagram Level 2

User Type	Functional requirement	User story number	User story/ Task	Acceptance criteria	Priority
Individual Users	Quick Processing	USN-1	As an Individual User, I want to customize the style, tone, or length of captions according to my preferences and the context of the image.	The application supports batch processing, enabling content creators to caption multiple images simultaneously, saving time and effort.	High
Content Creators	Advanced Customization	USN-2	As a Creator, I am into More extensive customization options, allowing for creative and artistic captions. This might include font styles, colours, and placement of captions on the image. .	Content creators have access to extensive customization features, allowing them to tailor captions creatively, including font styles, colors, and positioning.	High
Businesses and Organizations	Analytics and Insights	USN-3	As a Business man, I want Tools to track the usage patterns, user engagement, and effectiveness of captioned images for marketing and promotional campaigns.	User data should be securely encrypted and comply with data protection standards.	Low
Application Developers	Cost-Effective Solutions	USN-4	As a application Developer, the Pricing models that cater to different scales of applications, ensuring affordability for developers and startups.	Should have secure access to the requested anonymized data.	Low
Researchers and Academics	Data Analysis Tools	USN-6	As a Researcher, I want tools for analyzing input data, including image content analysis, statistical analysis of captions, and data visualization features to gain insights into dataset characteristics.	Access to an active community of researchers and experts, fostering collaboration, knowledge sharing, and problem-solving within the research community.	Medium