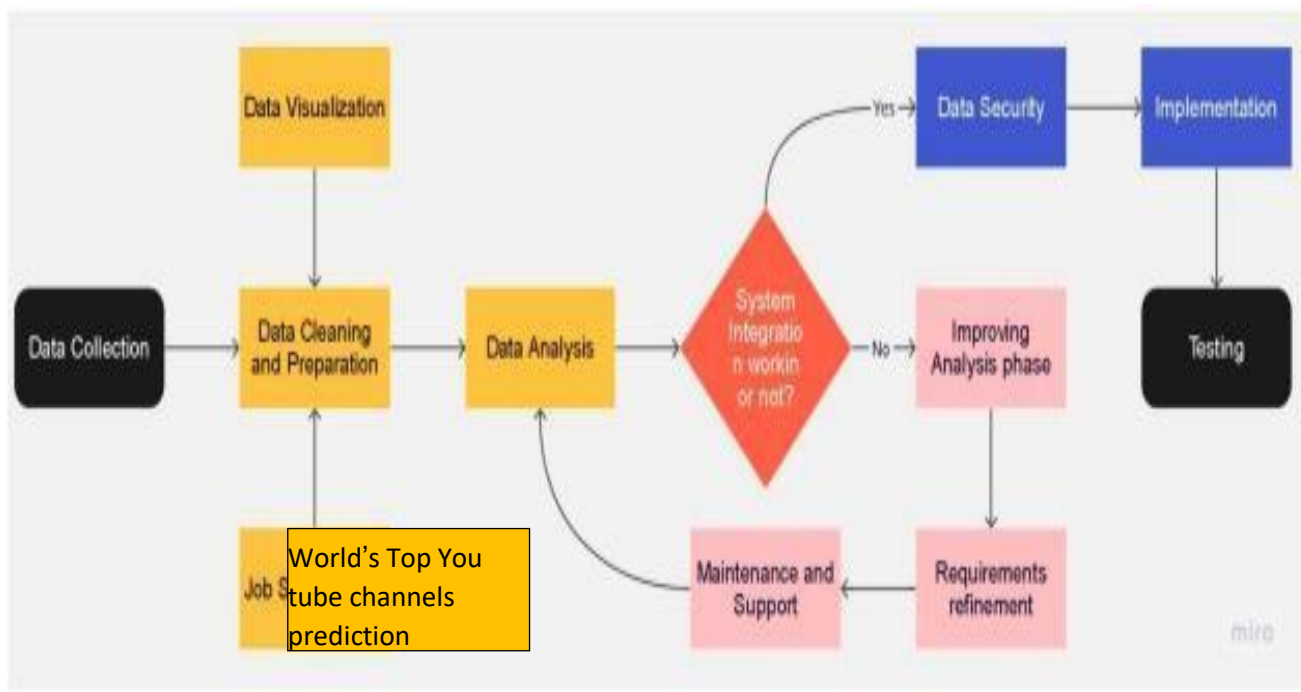# Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	20 october 2023
Team ID	01F86DB9712F996A81A488BFBE9AA874
Project Name	Subscribers Galore: Exploring the World's Top YouTube Channels
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Logic for a process in the application	Java / Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
9.	External API-2	Purpose of External API used in the application	Aadhar API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Component	Description	Technology
1	Web Server	Serves web pages to clients and processes requests from clients	Apache, Nginx, IIS
2	Application Server	Provides business logic and database connectivity for web applications	Tomcat, JBoss, WebSphere
3	Database Server	Stores and manages data for the application	MySQL, Oracle, SQL Server
4	User Interface	Allows users to interact with the application	HTML, CSS, JavaScript, jQuery
5	Cost of treatment	Collects job listings and related data from external sources	BeautifulSoup, Scrapy, Selenium
6	Job Data Processor	Cleans and filters job data, and stores it in a database for retrieval by the application	Python, Pandas, MySQL
7	Review Data Scraper	Collects company reviews and related data from external sources	BeautifulSoup, Scrapy, Selenium
8	Review Data Processor	Cleans and filters review data, and stores it in a database for retrieval by the application	Python, Pandas, MySQL
9	User Authentication	Verifies user identity and provides access control for the application	OAuth, OpenID Connect, JWT
10	Fraud Detection	Detects and prevents fraudulent job postings and reviews	Machine learning algorithms, Natural Language Processing (NLP)
11	Performance Monitoring	Monitors application performance and identifies bottlenecks or other issues	New Relic, AppDynamics, Datadog
12	Cloud Computing	Provides scalable infrastructure for the application, and allows for easy deployment and management	AWS, Azure, Google Cloud Platform
13	Cross-platform Development	Allows the application to be developed and deployed across multiple devices and platforms	React Native, Ionic, Xamarin