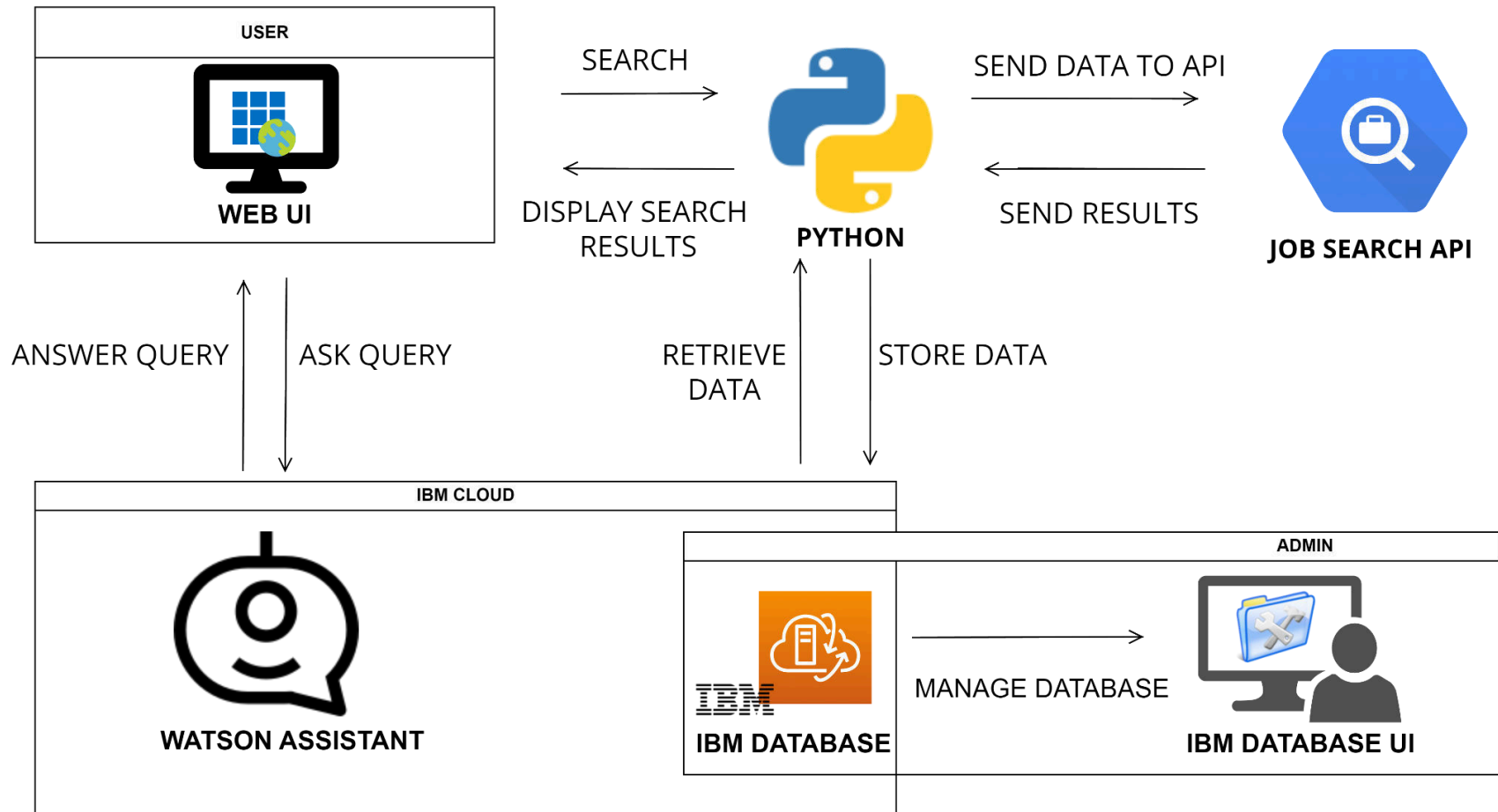**Project Design Phase-II**
Technology Stack(Architecture & Stack)

Skill and Job Recommender Application

Team ID	PNT2022TMID52245
Department	Computer Science and Engineering
College	Stella Mary's College Of Engineering
Team Leader	Ajai Inith D.L
Team Member 1	Braian Gibson.N
Team Member 2	Goutham M.S
Team Member 3	Sakthivel.K

TECHNICAL ARCHITECTURE

USER

WEB UI

SEARCH

DISPLAY SEARCH
RESULTS

PYTHON

SEND DATA TO API

SEND RESULTS

JOB SEARCH API

ANSWER QUERY

ASK QUERY

RETRIEVE
DATA

STORE DATA

IBM CLOUD

WATSON ASSISTANT

	ADMIN

IBM

IBM DATABASE

MANAGE DATABASE

IBM DATABASE UI

Table 1: Components and Technologies:

S.No	Component	Description	Technology
1.	User Interface	How the user interacts with the application	HTML, CSS, JavaScript
2.	Search	Search for jobs using Content-based filtering	Python
3.	Chat	Chat with IBM Watson Assistant	IBM Watson Assistant
4.	User Application	The user applies for the desired company	Python Flask
5.	Cloud Database	Database Service on Cloud	IBM DATABASE
6.	Job Search API	Job Search API is used for finding relevant results	Google Job Search API
7.	Infrastructure	Application Deployment on Local System/Cloud Local Server	Local, Cloud Foundry, Kubernetes

Table 2: Application Characteristics:

S.NO	Characteristics	Description	Technology
1.	Open source framework is used	Python flask framework is used	Python Flask
2.	Security Implementations	Mandatory access control,preventive security controls and supervised techniques are used	SHA-256,Encryption techniques,IAM controls,OWASP,Machine learning
3.	Scalable Architecture	Three-tier architecture	Presentation tire-HTML,CSS,Javascript Application tier-Python Data tier-IBM DATABASE
4.	Availability	Use of Load balancing to distribute network traffics across servers	IBM Load balancer
5.	Performance	No.of requests per second,use of cache,use of CDN's	IBM Content delivery network