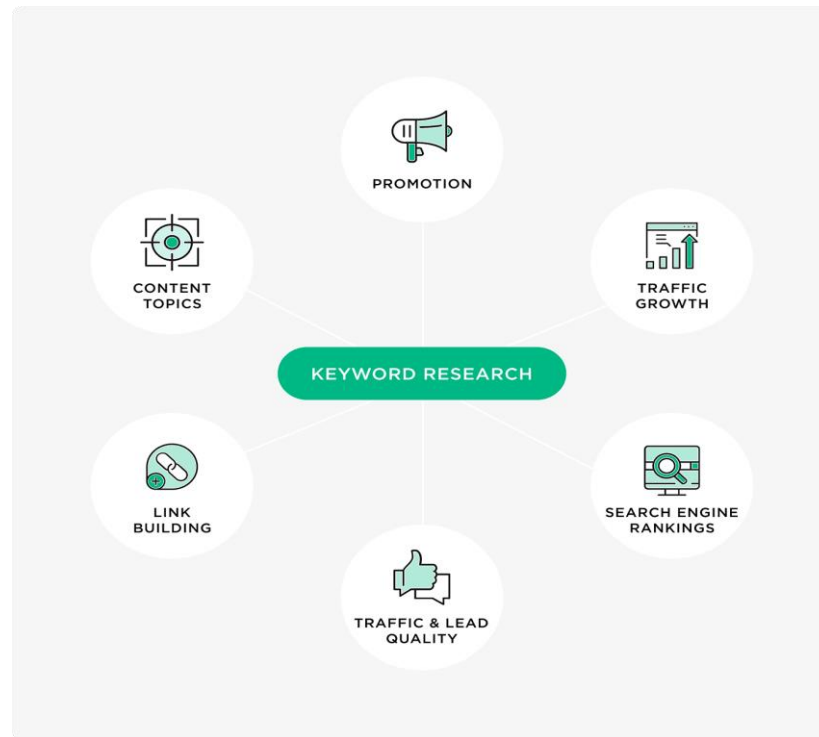


## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	03 November 2023
Team ID	NM2023TMID02776
Project Name	Keyword Research Using Google Keyword Planner

### Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2



**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.
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.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant.
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.
9.	External API-2	Purpose of External API used in the application	Aadhar API.
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes.

**Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python, JavaScript, Node.js, React.
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	SHA-256, Encryptions, IAM Controls, OWASP.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Microservices Architecture, Load balancing.
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Master-slave, NGINX.
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Redis, Celery, Apache kafka.