

Project Design Phase-I Solution Architecture

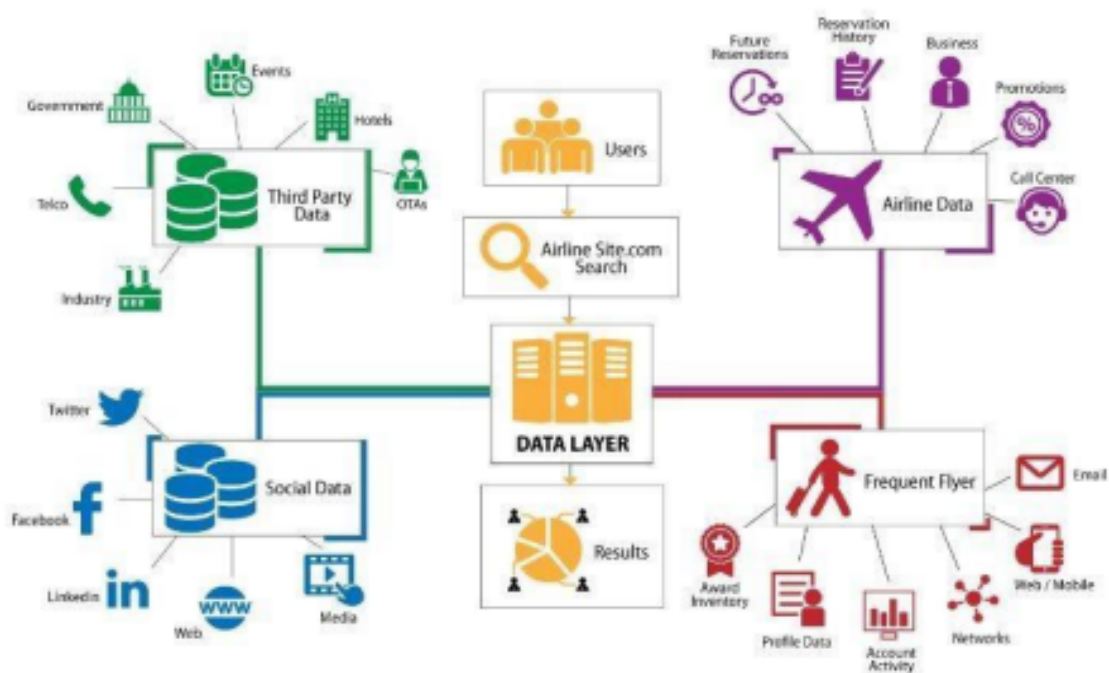
Date	23 october 2022
Team ID	PNT2022TMID22723
Project Name	Airlines data analytics for aviation industry
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.

Solution Architecture Diagram:



Example:

Airline Data Analytics For Aviation Industry

Table-1: Components & Technologies:

S.No	Components	Description	Technology
1.	User Interface	How the user interacts with the application. Example: Mobile App	HTML, CSS, Java Script, Excel
2.	Application Logic-1	Logic for a process in the application	IBM Watson STT service, Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson Assistant
4.	Database	Data Type, Configurations	MySQL, NSQL
5.	Cloud Database	Database service on cloud	IBM DB2, IBM Cloudant
6.	File Storage	File Storage requirements	IBM Blocks Storage or other storage service or Local File system
7.	External API-1	Purpose of External API used in the application	IBM Weather API
8.	External API-1	Purpose of External API used in the application	Aadhar API

S.No	Components	Description	Technology
9.	Infrastructure (Server/Cloud)	Application Deployment on Local System/Cloud Local Server Configuration: Cloud Server Configuration	Local, Cloud Foundry

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of open source framework
2.	Security Implementations	List all the security/access controls implemented, use of firewalls.	Example: SHA-256, Encryption, IAM Controls, OWASP
3.	Scalable Architecture	Justify the scalability of architecture	Cognos Used
4.	Availability	Justify the availability of application (e.g: use of load balancers, distributed servers)	AWS Used

5.	Performance	Design consideration for the performance of the application (number of requests per second, use of Cache, use of CDN's)	Dashboard, Reports, Stories
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