

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

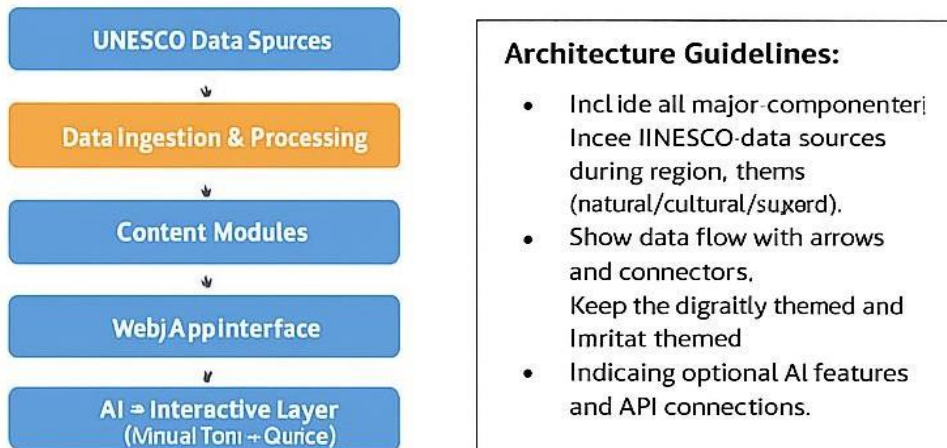
<b>Date</b>	21 June 2025
<b>Team ID</b>	LTVIP2025TMID49913
<b>Project Name</b>	Heritage Treasures: An In-Depth Analysis Of UNESCO World Heritage Sites In Tableau
<b>Maximum Marks</b>	4 Marks

**Technical Architecture:**

The technical architecture of the *Heritage Treasures* project integrates UNESCO data sources, content processing modules, and an interactive web interface to deliver an educational platform that showcases World Heritage Sites through AI- enhanced storytelling and user engagement tools.

**Example:** Heritage Exploration Platform

**Reference:** [IBM Cloud Architecture Center](#)



S.NO.	Component	Description	Technonolgy
1.	User Interface	Web- based interaction layer	HTML, CSS, JavaScript, React.js
2.	Application Logic-1	Heritage Site Categorization	Python, Flask
3.	Application Logic-2	Site Recommndation & Storytelling engine	OpenAI, API, GPT
4.	Application Logic-3	Chatbot FAQs and Guidance	Rasa or Diaglogflow
5.	Database	Stores site details, categories, metadata	PostgreSQL/ MYSQL
6.	Cloud Database	Story synced user data And heritage content	Firebase/ AWS RDS
7.	File Storage	Media storage for images , maps	AWS S3/Google Cloud Storage
8.	External API-1	Site geolocation	Google Maps API
9.	External API-2	Heritage data or updates	UNESCO Public APIs
10.	Machine Learning Model	Optional: site recognition/ classification	Scikit-learn/ TensorFlow
11.	Infrastructure	Hosting & Deployment	AWS EC2/ Vercel/ Heroku

**Table-2: Application Characteristics:**

S.NO.	Characteristics	Description	Technology
1.	Open-Source Frameworks	Reusable frameworks and tools	React.js, Flask, Bootstrap
2.	Security Implementations	Data protection and role access	JWT, HTTPS, IAM
3.	Scalable Architecture	Modular microservices for Future expansion	Docker, Kubernetes
4.	Availability	Cloud hosting, backups, Distributed servers	AWS Load Balancer, Cloud DNS
5.	Performance	Caching, fast-loading page Responsive design	Redis, Cloudflare CDN

**Reference:**

<https://whc.unesco.org/en/list/>

<https://c4model.com/>

<https://core.unesco.org/en/unesco-transparency-portal-replaced-core-data-portal>

<https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d>

<https://www.ibm.com/architectures>