**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

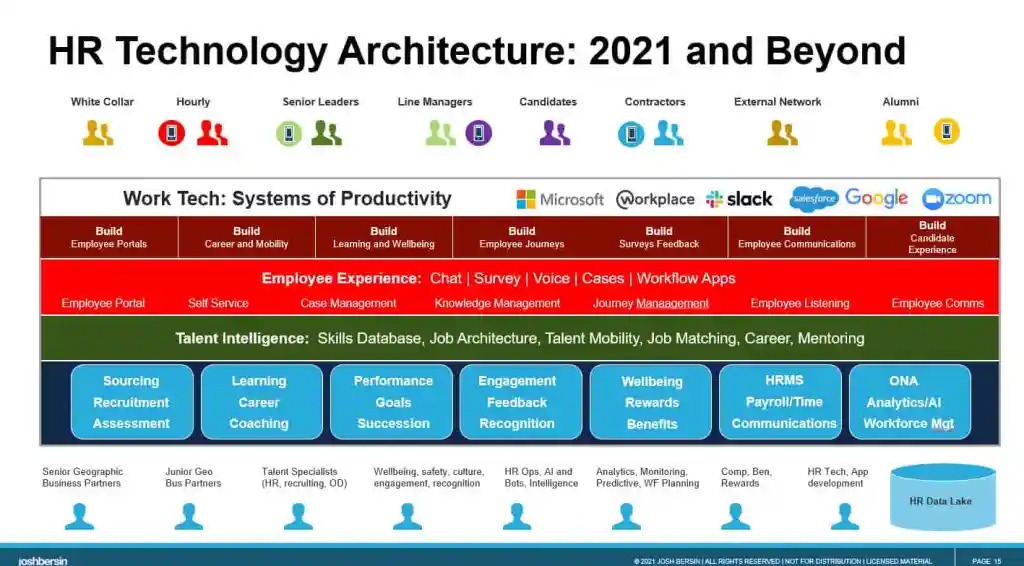
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| --- | --- |
| Date | 13 October 2022 |
| Team ID | PNT2022TMID50144 |
| Project Name | Project – Skill and Job Recommender |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

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

**Example: Order processing during pandemics for offline mode**

**Reference:** [**https://joshbersin.com/2021/09/ten-new-truths-about-the-hr-technology-market/**](https://joshbersin.com/2021/09/ten-new-truths-about-the-hr-technology-market/)

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Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API’s etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

**Table-1 : Components & Technologies:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Component** | **Description** | **Technology** |
|  | User Interface | How user interacts with application e.g.  Web UI, Mobile App, Chatbot etc. | HTML, CSS, JavaScript / Angular Js / React Js etc. |
|  | Application Logic-1 | Logic for a process in the application | Java / Python |
|  | Application Logic-2 | Logic for a process in the application | IBM Watson STT service |
|  | Application Logic-3 | Logic for a process in the application | IBM Watson Assistant |
|  | Database | Data Type, Configurations etc. | MySQL, NoSQL, etc. |
|  | Cloud Database | Database Service on Cloud | IBM DB2, IBM Cloud ant etc. |
|  | File Storage | File storage requirements | IBM Block Storage or Other Storage Service or Local Filesystem |
|  | External API-1 | Purpose of External API used in the application | IBM Weather API, etc. |
|  | External API-2 | Purpose of External API used in the application | Aadhar API, etc. |
|  | Machine Learning Model | Purpose of Machine Learning Model | Object Recognition Model, etc. |
|  | 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** | **Characteristics** | **Description** | **Technology** |
| --- | --- | --- | --- |
|  | Open-Source Frameworks | List the open-source frameworks used | Technology of Opensource framework |
|  | Security Implementations | List all the security / access controls implemented, use of firewalls etc. | e.g. SHA-256, Encryptions, IAM Controls, OWASP etc. |
|  | Scalable Architecture | Justify the scalability of architecture (3 – tier, Micro-services) | Technology used |
|  | Availability | Justify the availability of application (e.g. use of load balancers, distributed servers etc.) | Technology used |
|  | Performance | Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN’s) etc. | Technology used |

**References:**

[**https://www.researchgate.net/publication/325697854\_Job\_Recommendation\_based\_on\_Job\_Seeker\_Skills\_An\_Empirical\_Study**](https://www.researchgate.net/publication/325697854_Job_Recommendation_based_on_Job_Seeker_Skills_An_Empirical_Study)

[**https://upcommons.upc.edu/bitstream/handle/2099.1/16121/85330.pdf?sequence=1&isAllowed=y**](https://upcommons.upc.edu/bitstream/handle/2099.1/16121/85330.pdf?sequence=1&isAllowed=y)

[**https://www.linkedin.com/**](https://www.linkedin.com/)

[**http://oogle.com/search?q=skill+job+recommender+application+technology+architecture&rlz=1C1CHBD\_enIN971IN971&ei=zBdIY\_frKLiF4-EP2qOpkAg&start=10&sa=N&ve**](http://oogle.com/search?q=skill+job+recommender+application+technology+architecture&rlz=1C1CHBD_enIN971IN971&ei=zBdIY_frKLiF4-EP2qOpkAg&start=10&sa=N&ve)

[**https://www.bain.com/vector-digital/enterprise-technology/systems-and-architecture/?gclid=EAIaIQobChMIk527ia7d-gIVQzVyCh0G7AOTEAMYASAAEgIBgfD\_BwE**](https://www.bain.com/vector-digital/enterprise-technology/systems-and-architecture/?gclid=EAIaIQobChMIk527ia7d-gIVQzVyCh0G7AOTEAMYASAAEgIBgfD_BwE)