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

| Date | 03 October 2022 |
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| Team ID | PNT2022TMID29862 |
| Project Name | AI BASED DISCOURSE FOR BANKING INDUSTRY |
| Maximum Marks | 4 Marks |

## Technical Architecture:
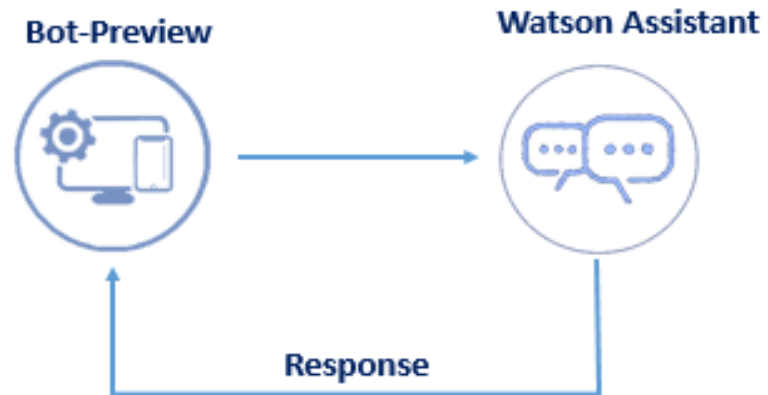
## Table 1:  Components & Technologies:

| S. No | COMPONENT | DESCRIPTION | TECHNOLOGY |
|---|---|---|---|
| 1. | User Interface | Website | HTML, CSS, JavaScript, Python |
| 2. | Application Logic-1 | Chatbot  to ask queries whenever they need | HTML, CSS, JavaScript, Python |
| 3. | Application Logic-2 | Gets the exact answer from the chatbot | IBM Watson |
| 4. | Application Logic-3 | Bot will answer to the customers queries | IBM Watson Assistant |
| 5. | Database | To get to know about their customer details | MySQL,oracle,IBM |
| 6. | Cloud Database | Most banks uses one of the india's most robust | IBM DB2 |
| 7. | File Storage | Private cloud | IBM block storage |
| 8. | External API-1 | Data's are stored in file system,tapes , public cloud | IBM box status API |
| 9. | External API-2 | API'S for communication between bank and client | User name and password |
| 10. | Machine Learning Model | Analytics , account information , payment processing ML can help banks quickly identity user activity ,verify | Response |
| 11 | Infrastructure (Server / Cloud) | It and respond to cyber attacks quickly. To host the server and application | Machine learning |

| S.N0 | Components | Description | Technology |
|---|---|---|---|
| 1. | Open-source frameworks | Google Tensorflow, an open-source software framework for building and using machine learning neural networks, is very easy to set up and extend. It's the most popular deep learning framework, with the largest number of GitHub stars and the second-highest percentage of open source repositories. | PyTorch , machine learning , RNN , CNTK |
| 2. | Security Implementation | Machine Learning, predictive analytics, and voice recognition tools are all increasing the value of digital banking services. AI Chatbots, facial recognition banking apps, and fraud detection systems and applications are all a few best examples of AI in banking and finance industry. | e.g.firewalls , authentication , encryption and authorization. |
| 3. | Scalable Architecture | 24/7 customer support means customers can get help and find answers to questions as soon as they come up—24/7 and in real-time. | Chatbot |
| 4. | Availability | This ensures that all of its User can ask queries about banking sector data is available to the end-users at any time of the day, whenever and wherever required. | Chatbot |
| 5. | Performance | Customers can rate banks with a high customer experience score (i.e. 10/10). | Website |