Component and Technologies

S.No	Component	Description	Technology
1	**Feature Selection**	Selecting relevant features for the model	AWS Sagemaker
2	**Model Selection**	Choosing the appropriate machine learning model	AWS Sagemaker
3	**Model Training**	Training the selected model	AWS Sagemaker
4	**Model Evaluation**	Evaluating the performance of the trained model	AWS Sagemaker
5	**Reporting and Visualization**	Generating reports and visualizing the results	Python
6	**Frontend Display**	Developing the user interface for displaying results	Web Development Technologies
7	**Data Collection and Preprocessing**	Gathering and preparing data for analysis	Python
8	**Deployment**	Deploying the trained model for production use	Flask
9	**ETL Process**	Extract, Transform, Load process for data	AWS Glue
10	**Data Cleaning**	Cleaning the data to remove inconsistencies	AWS Glue
11	**Feature Engineering**	Creating new features from existing data	AWS Sagemaker
12	**Model Serialization**	Saving the trained	Pickle

		model for later use	
13	**Integration with App**	Integrating the model with an application	Flask
14	**Front End Design**	Designing the user interface for the application	Web Development Technologies
15	**Compliance and Governance**	Ensuring data privacy and security	Amazon EBS
16	**Scaling Strategy**	Strategy for scaling the system	AWS EC2, EBS, other services
17	**Optimization**	Improving the model and utilizing AWS improvements	Model + AWS improvements

Application Characteristics

S.No	Characteristics	Description	Technology
1	**Accuracy**	The ability of the model to make correct predictions	Technology Used
2	**Speed**	The quickness of the application's response time	Technology Used
3	**Performance**	Efficient utilization of system resources	Technology Used
4	**Robustness**	The ability of the application to handle different scenarios and inputs	Technology Used
5	**Scalability**	Ability to handle increasing workload or user base	Technology Used
6	**Reliability**	Consistency and stability of the application	Technology Used