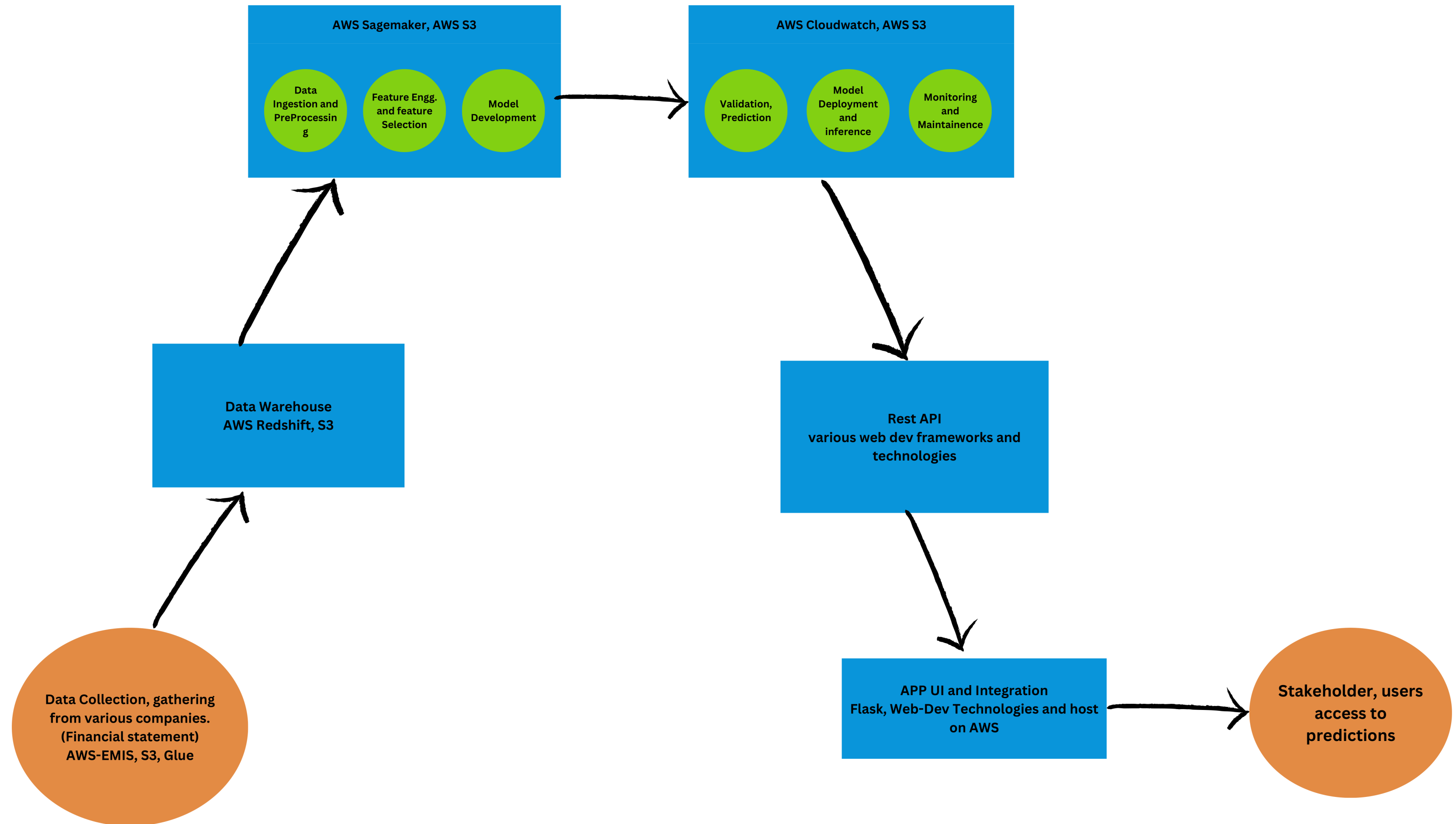


# Anticipating Business Bankruptcy



## Component and Technologies

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

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

## Application Characteristics

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