# Design document – ESG Analytics Platform

# Sustainability Benchmarking and Predictive Forecasting

## System Architecture

### Data Collection

* Retrieve publicly available ESG reports from company websites.
* Extract data from these reports using cutting-edge Natural Language Processing (NLP) techniques.

### Data Processing and Analysis

* Parse complex financial reports and other business documents.
* Utilize machine learning algorithms to predict ESG scores.
* Compare the extracted data and ESG scores with competitors' indices.

### Report Generation

* Develop a robust report generation mechanism that assigns ratings based on comparison results.
* Generate benchmark reports in plain English highlighting areas for improvement.

### User Interface

* Allow bank analysts to upload PDF reports.
* Display comparison results and benchmark reports.

## Frontend Design:

### Homepage

* Welcome message and brief overview of the system.

### Upload Page

* File upload feature with drag-and-drop functionality.
* Progress indicator for file upload.

### Analysis Page

* Display extracted data and predicted ESG scores.
* Visual representation of comparison results with competitors.
* Option to generate benchmark reports.

## Report Generation

* Provide downloadable benchmark reports.
* Include detailed insights on areas for improvement.

## Settings

* Allow customization of report parameters.
* Provide options for adjusting comparison criteria.

## Backend Design:

### Benchmark Comparison

### Benchmark ML:

### ESG Score Prediction ML