

Figure 8.1: Dataset Distribution Plot

Precision: 90%Recall: 89%F1-Score: 90%

Table 8.2: Model Performance Metrics

Metric	Value
Accuracy	92%
Precision	90%
Recall	89%
F1-Score	90%

8.4 Frontend Development

- Home Page: Introduces the system with navigation links.
- Prediction Form: Collects user inputs with real-time validation.
- Dashboard: Displays charts using Chart.js.

8.5 Backend Development

- API Endpoints:
 - /predict: Processes inputs and returns predictions.