Overview

Objective

In the project, we analyzed the 2011 lending club loan information to predict future loan approval possibility by creating a machine learning model on categorical data.

We analyzed the correlation between different categorical data and loan status, for example, the loan amount, interest rate, annual income. The prediction app is to predict if the applicant could qualified for the loan.

Programming Languages & Libraries

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| Name | Description | Purpose |
| Excel | Local data source as CSV file | Back end |
| Jupyter Notebook | Data preparation and visualization | Back end |
| Python | Data cleaning and analysis | Back end |
| HTML | Webpage programming | Front End |
| CSS | Webpage formatting | Front End |
| Tableau | Data visualization | Front End |
| Colab | Develop deep learning applications | Back End |

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| --- | --- | --- |
| Name | Description | Supports |
| Pandas | Data analysis and manipulation | Python |
| Numpy | High-level mathematical functions for large and multi-dimensional arrays | Python |
| Matplotlib | Data visualization | Python |
| Seaborn | Data visualization | Python |
| Scikit-learn | Machine learning | Python |
| Pycaret | Machine learning | Python |
| Bootstrap | Front end web development | HTML, CSS, JS |
| Flask | Web framework | Python, HTML |
| Jinja | Templating language | Python, Flask |