Loan Prediction System

Project Title:

Loan Prediction System using Machine Learning

Project Overview:

This project predicts whether a loan application will be approved or not approved based on customer details like age, income, loan amount, credit history, and employment status.

We used Logistic Regression for classification and followed standard data science steps like data cleaning, preprocessing, model building, and evaluation.

Technologies Used:

* Python
* Pandas (data handling)
* NumPy (numerical operations)
* Scikit-learn (machine learning algorithms)
* Matplotlib & Seaborn (data visualization)

Steps Performed:

1. Loaded and explored the dataset (loan\_data.csv)

2. Cleaned missing values and handled outliers

3. Encoded categorical variables

4. Split the data into training and testing sets

5. Applied Logistic Regression and Linear Regression

6. Evaluated the model using:

--Accuracy Score

--Confusion Matrix

Output:

-Predicts whether the loan will be Approved (1) or Not Approved (0)

-Displays model performance (accuracy, error rate)

Files Included:

* Loan1.ipynb – Jupyter Notebook
* loan\_data.csv – Dataset file
* README.docx – Project summary

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