





SMART LOAN PORTAL WITH AI MODEL FOR ELIGIBILITY ANALYSIS

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1. What This Project Is



- This project is a complete loan application website.
- Users can apply for a loan online.
- The system uses an AI model to check if the loan will be
 - **Approved or Rejected**
- Everything happens automatically with no manual checking.

2. What I Built



I created the full system including:

- User login & registration
- A loan prediction form
- A history page showing past results
- An admin dashboard with charts
- A machine learning model connected to Django
- Clean and simple frontend design

3. The Machine Learning Model

- I used a loan dataset with many past records.
- I cleaned the data and removed missing values.
- I trained the model to learn patterns of people who get loans.
- The model becomes smart and predicts with high accuracy.
- I saved the model and connected it with Django.



4. Technologies I Used

- **Frontend:** HTML, CSS
- **Backend:** Django (Python)
- **Database:** MySQL
- **ML Libraries:** pandas, numpy, scikit-learn
- **Tools Used:** VS Code



5. Output



Approved when:

- High income
- Good credit history
- Low or reasonable loan amount
- Stable job / graduate

Rejected when:

- Low income
- Weak credit history
- Very high loan amount
- Unstable profile

6. Output Screenshot – login , register



Smart Loan Portal

Login

Enter Username

Enter Password

Login

Create New Account

Smart Loan Portal

Create Account

Enter Username

Enter Email

Enter Password

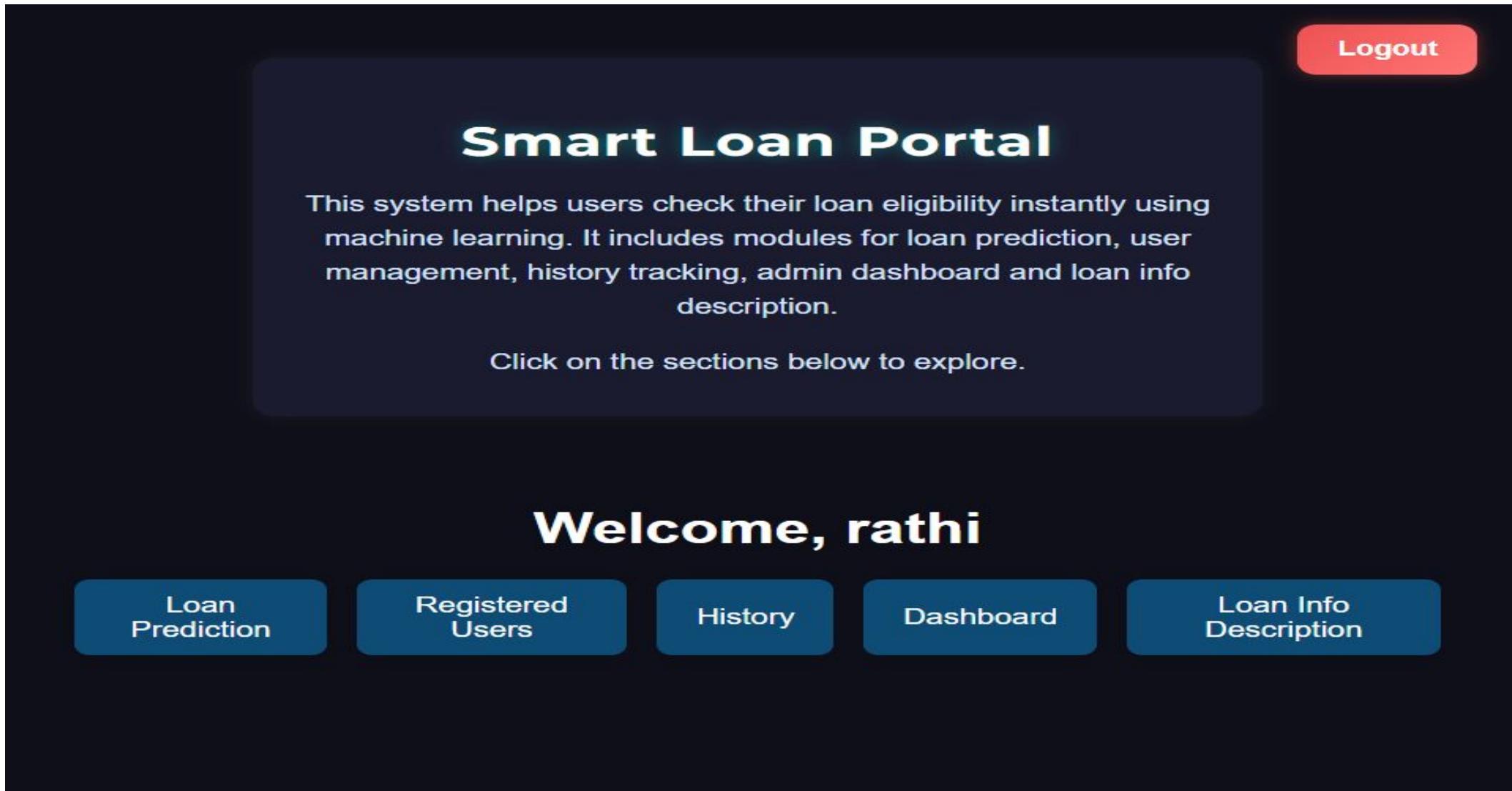
Enter Age (Optional)

Enter Permanent Address (Optional)

Register

Already have an account? [Login](#)

6. Output Screenshot



A screenshot of the Smart Loan Portal interface. At the top right is a red "Logout" button. In the center, the title "Smart Loan Portal" is displayed in large white font. Below the title is a descriptive paragraph: "This system helps users check their loan eligibility instantly using machine learning. It includes modules for loan prediction, user management, history tracking, admin dashboard and loan info description." A call-to-action text "Click on the sections below to explore." is centered below the paragraph. At the bottom, a welcome message "Welcome, rathi" is shown above five blue rectangular buttons labeled "Loan Prediction", "Registered Users", "History", "Dashboard", and "Loan Info Description".

Logout

Smart Loan Portal

This system helps users check their loan eligibility instantly using machine learning. It includes modules for loan prediction, user management, history tracking, admin dashboard and loan info description.

Click on the sections below to explore.

Welcome, rathi

Loan Prediction

Registered Users

History

Dashboard

Loan Info Description

6. Output Screenshot



Welcome, rathi

Loan Prediction Registered Users History Dashboard Loan Info Description

Loan Eligibility Prediction

Gender	Married	Dependents
Male	Yes	0
Education	Self Employed	Applicant Income
Graduate	Yes	
Co-applicant Income	Loan Amount	Loan Amount Term
		360
Credit History	Property Area	
Good (1)	Urban	

Predict Loan Eligibility

6. Output Screenshot

Welcome, rathi

Loan Prediction Registered Users History Dashboard Loan Info Description

Loan Eligibility Prediction

Gender	Married	Dependents
Female	No	2
Education	Self Employed	Applicant Income
Graduate	Yes	50000
Co-applicant Income	Loan Amount	Loan Amount Term
5000	500000	200
Credit History	Property Area	
Bad (0)	Semi-Urban	

Predict Loan Eligibility

Prediction: Rejected

6. Output Screenshot



Welcome, dia

Loan Prediction Registered Users History Dashboard Loan Info Description

Loan Eligibility Prediction

Gender	Married	Dependents
Male	Yes	0
Education	Self Employed	Applicant Income
Graduate	Yes	8000
Co-applicant Income	Loan Amount	Loan Amount Term
2000	120	360
Credit History	Property Area	
Good (1)	Urban	

Predict Loan Eligibility

Prediction: Approved

6. Output Screenshot



Pre

Prediction: Approved

Decision Explanation

- Low total income

Prediction: Approved

Decision Explanation

- Good credit history
- Sufficient income
- Affordable EMI
- Low financial risk

Pre

Prediction: Rejected

Decision Explanation

- Poor credit history

6. Output Screenshot



Welcome, rathi

Loan Prediction Registered Users History Dashboard Loan Info Description

Registered Users

ID	Username	Email	Edit	Delete
1	rathi	poornarathi32@gmail.com	Edit	Delete
2	Poorna	poornarathi@gmail.com	Edit	Delete
3	dia	dia@gmail.com	Edit	Delete

6. Output Screenshot

Your Loan History

ID	Applicant Income	Co-applicant Income	Loan Amount	Credit History	Property Area	Prediction
50	4000.0	2000.0	50.0	0.0	Urban	Rejected
49	5000.0	8000.0	5000.0	1.0	Urban	Rejected
48	8000.0	2000.0	1.0	1.0	Urban	Approved
47	8000.0	2000.0	1.0	1.0	Urban	Approved
46	8000.0	2000.0	0.12	1.0	Urban	Approved
45	8000.0	2000.0	0.12	1.0	Urban	Approved
24	5000.0	3000.0	80000.0	1.0	Urban	Rejected
23	5000.0	3000.0	80000.0	1.0	Urban	Rejected

Welcome

Loan
Prediction

Registered
Users

His

Admin Dashboard

Total Users: 3

Total Loans: 50

Approved: 4

Rejected: 46

6. Output Screenshot

Loan Status Guide

Approved: When your income is good, credit history is strong (1), loan amount is reasonable, and your repayment capability is clear.

Rejected: When income is low, credit history = 0, loan amount is too high, or financial risk is high.

Input Field Meaning

- **Applicant Income:** Your monthly salary.
- **Co-applicant Income:** Family/partner's supporting income.

- **Credit History:** 1 = Good record, 0 = Poor record.
- **Loan Amount:** Total loan you are requesting.
- **Loan Amount Term:** Number of months to repay (usually 360).
- **Dependents:** Number of people financially depending on you.
- **Self Employed:** Yes/No – shows income stability.
- **Property Area:** Urban/Semi-Urban/Rural (Urban has higher approval chance).

Close



Thank You