

# PERSONAL LOAN APPROVAL USING MACHINE LEARNING

Submitted by

K.vishnupriya(20326ER038)

A.Sivasakthi(20326ER034)

H.vijayalakshmi(20326ER036)

S.Vinothini(20326ER0ER037)

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# INTRODUCTION

## OVERVIEW

- Loans are the core business of banks .The main profit comes directly from the loan interest.
- The loan companies grant a loan after an intensive process of verification and validation.
- However,they still dont have assurance if the applicant can replay the loan with no difficulties.
- This can help financial institutions to make more informed decisions

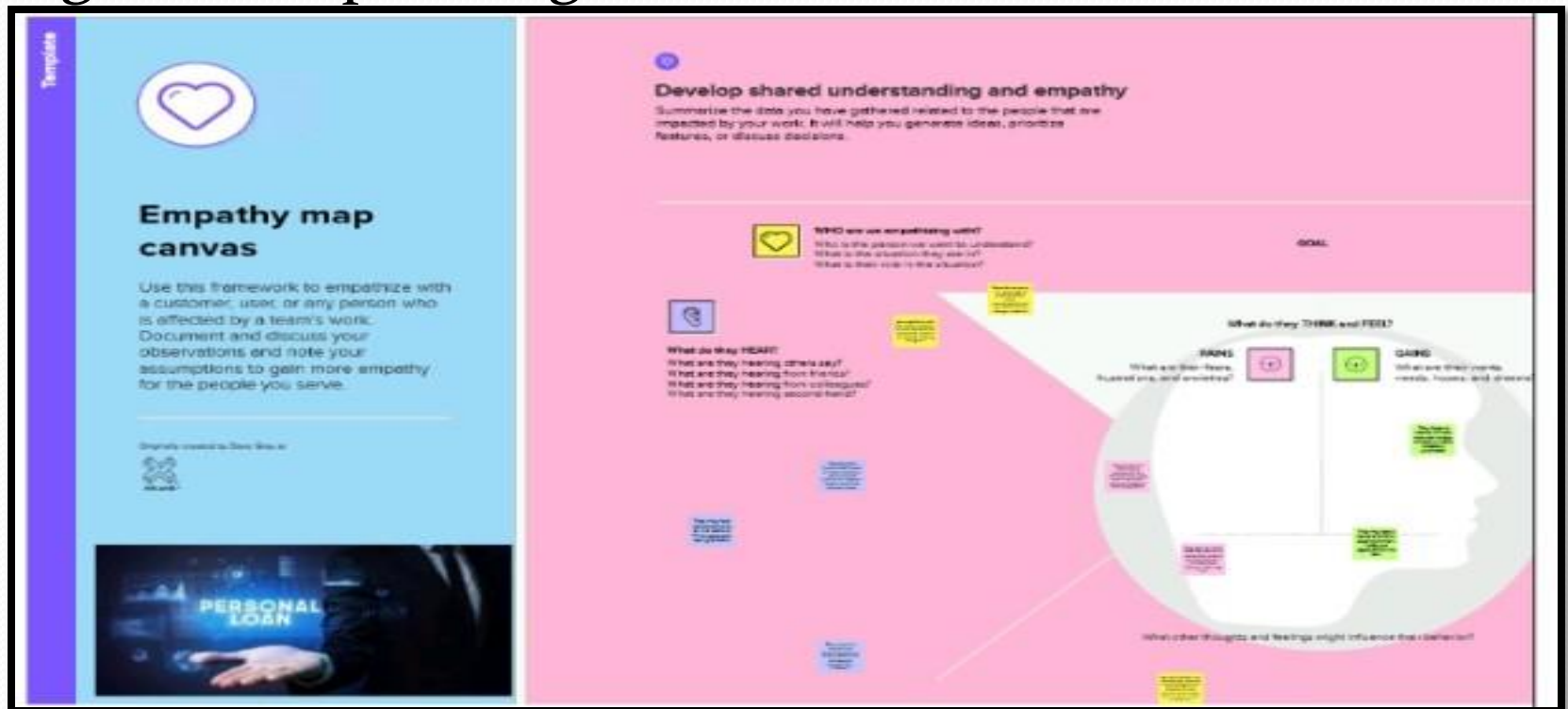
# purpose

- ✧ Construction of house
- ✧ Purchase of ready-build house and flat
- ✧ Additional construction and Renovation of existing house
- ✧ To provide for child's loan
- ✧ For understanding the professional course loan
- ✧ Finance your New bussiness
- ✧ Medical expenses

# PROBLEM DEFINITION & DESIGN THINKING

## EMPATHY MAP

An empathy map is a collaborative tool teams can use to gain a deeper insight into their customers



# Ideation and brainstorming map

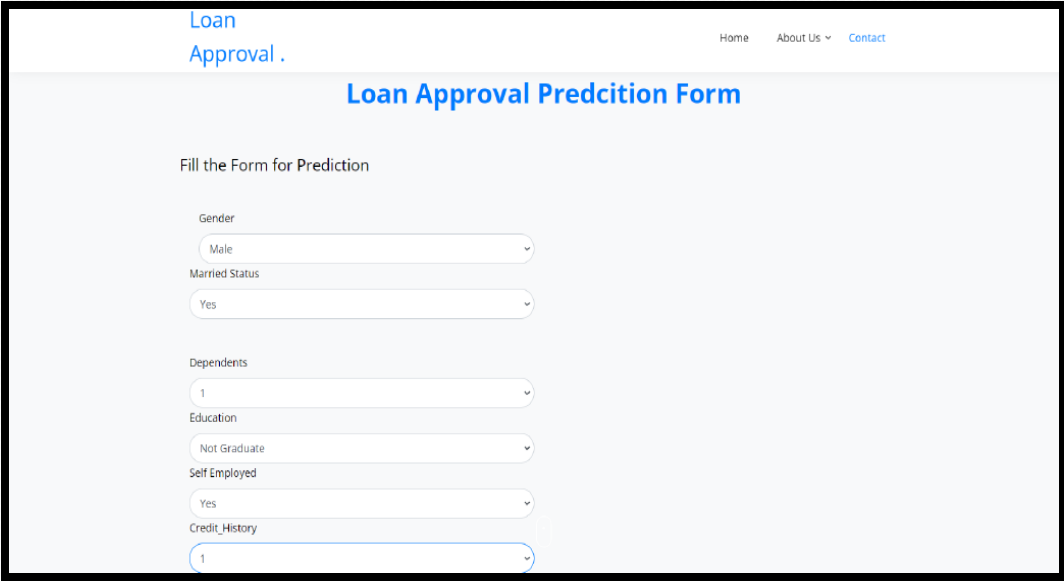
- ✧ Ideation is the process of generating ideas on one or more subjects in a creative, open environment
- ✧ This is a powerful method at any stage of development process
- ✧ Product teams can take advantage of ideation sessions to collaborate and stimulate their creativity

# Brainstroming map



# Result

- Open anaconda prompt for the start menu
- Navigate to the folder where your python script is
- Now type the “python app.py” command
- Navigate to the local host where you can view your web page



The screenshot shows a web application interface for a loan approval prediction form. The header includes the text 'Loan Approval .' on the left and navigation links 'Home', 'About Us', and 'Contact' on the right. The main title 'Loan Approval Prediction Form' is centered in blue. Below the title, the instruction 'Fill the Form for Prediction' is displayed. The form consists of several dropdown menus: 'Gender' with 'Male' selected, 'Married Status' with 'Yes' selected, 'Dependents' with '1' selected, 'Education' with 'Not Graduate' selected, 'Self Employed' with 'Yes' selected, and 'Credit\_History' with '1' selected.



Loan Approval .

Home About Us Contact

Self Employed

Yes

Credit\_History

1

Property Area

Semirurban

Enter Applicant Income

3245

Enter Loan Amount

234

Enter Co-Applicant Income

212

Enter Loan Amount term

213

submit

Now when you click on the submit button you will get the result in the same page.

Loan Approval .

Home About Us Contact

-- select Property\_Area --

Enter Applicant Income

ApplicantIncome

Enter Loan Amount

LoanAmount

Enter Co-Applicant Income

CoapplicantIncome

Enter Loan Amount term

Loan\_Amount\_Term

submit

Loan will be Approved

# advantages

- ❧ There have been number of cases of input glitches, human errors in content while filling it manually while in automated prediction system is more secure, reliable
- ❧ Machine learning increases the accuracy compare to old traditional system and results get displayed in polar format (yes on no

# DISADVANTAGE

- ❖ Loans are not very flexible you could be paying interest on funds your are not using
- ❖ High fees and interest rate
- ❖ Short repayment course
- ❖ Vague terms and condition

## application

- ✧ Collecting data of the previous granted and non granted customers
- ✧ Cleaning and filtering data according to the requirement
- ✧ Selecting features on the basis of the relation with loan approval
- ✧ Training our models with the help of ML algorithm
- ✧ Test our model on testing data

# conclusion

- ❑ A system called the loan credibility prediction system that helps the organization in making right decision to approve or reject the loan request of the customer

## Future scope

- ✧ The future scope of predicting personal loan approval is promising as advancements in technology and data analytics continue to shape the lending landscape
- ✧ The availability of large volumes of data commonly known as big data, presents new opportunity for predicting personal loan approvals
- ✧ Overall the features scope of predicting personal loan approval is promising with advancement in technology and data analytics expected to revolutionize the lending industry