Loan Prediction Model

Step 1 : Install Requirement.txt fil.

Step 2 : Python Model Accepted String type of data.

Step 3 : Create a DataFrame and Model accept Entire this format

[Column Name]	[Colum Input]
1. **Educations :**	Non_Metric, Matric, Inter, Gradutation, PG.
2. **Area :**	Urban,Rural.
3. **Married_Status :**	Married ,UnMaried.
4. **Criminal_Status :**	Yes,No
5. **Employed_type :**	Business, Salaried, Professional, Unemployed
6. **Spouse_Education :**	Non_Metric, Matric, Inter, Gradutation, PG.
7. **Gender :**	Male,Female,Transgender.
8. **Age :**	Below_20,20-30,30-40,40+
9. **Dependents :**	0,1,2,3,4
10. **City_Type :**	Metro, City, Town, Village
11. **Home :**	Rented,Owned
12. **Vehicle :**	Wheeler_2,Wheeler_4
13. **Income :**	0-10000, 10000-25000, 25000-50000, 50000-75000, 75000+
14. **Cibil :**	0-300,300-500,500-700,700-900
15. **Spouse_Income :**	0-10000, 10000-25000, 25000-50000, 50000-75000, 75000+
16. **Pin_code :**	allowed,not_allowed
17. **City_Name :**	allowed,not_allowed

Step 4 :

Example: [Jeson Format]

```
{
    "Educations": "Matric",
    "Area": "Urban",
    "Married_Status": "Married",
    "Criminal_Status": "No",
    "Employed_type": "Business",
    "Spouse_Education": "Gradutation",
    "Gender": "Male",
    "Age": "30-40",
    "Dependents": "1",
    "City_Type": "City",
    "Home": "Owned",
    "Vehicle": "Wheeler_2",
    "Income": "50000-75000",
    "Cibil": "700-900",
    "Spouse_Income": "25000-50000",
    "Pin_code": "allowed",
    "City_Name": "allowed"
}
```

Step 5 : when I get a prediction value through the model then model pass the array then we get array fast element.

Example :

value = 44.3737373

a = value[0]

then convert the inter format because the function is define 30 to 100 scale and 1000 to 10000 scale so based on that we converted integer value after conversion we get only for '44'.

Example:

```
b = int(a)
```

Step 6 : If loan percentage grater then 30 then heat the function (Step 7).

Example:

```
if abc >30:
        amount = percentage(b)
        print(b)   # this is the loan percentage.
        Print(amout)
else:
                Print(You are Not Elegible)
        print(b)   # this is the loan percentage.
```

Step 7 : we have to create a function. First we have to calculate scaling 30-100 into 1-100 range to calculate loan percentage then scaling 1-100 into 1000-10,000 to calculate loan amount.

Function Example:

```
def percentage(integer_part):
  # scaling 30-100 into 1-100 range to calculate loan percentage
        x = integer_part - 30
        cal = x / 0.707
        loan_percentage = round(cal)
 # scaling 1-100 into 1000-10,000 to calculate loan amount
        ratio = 9000/99
        amount = ratio * (loan_percentage - 1)
        loan_amount = round(amount + 1000)
        return loan_amount
```

Step 8 : when we have a get result then after that batter optimization we want to delete dataframe.

Example :

```
Result = pd.DataFrame # it is a dataframe
del  Result
```