

## HCL Internship - Mini Project

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Title: Human resource requirement prediction and analysis for an IT Organization.

Human resource planning is one of the most important human resource practice in the organization. IT Organization rely much on human resource prediction and analysis to determine their current position and future needs of manpower. IT organizations today want to be predictive, and want to gain information and insight from data that enables them to detect patterns and trends, anticipate events, spot anomalies, forecast using what if simulations and learn changes in employee behaviour so that employee can take actions that lead to desired business outcomes.

Software Requirement:

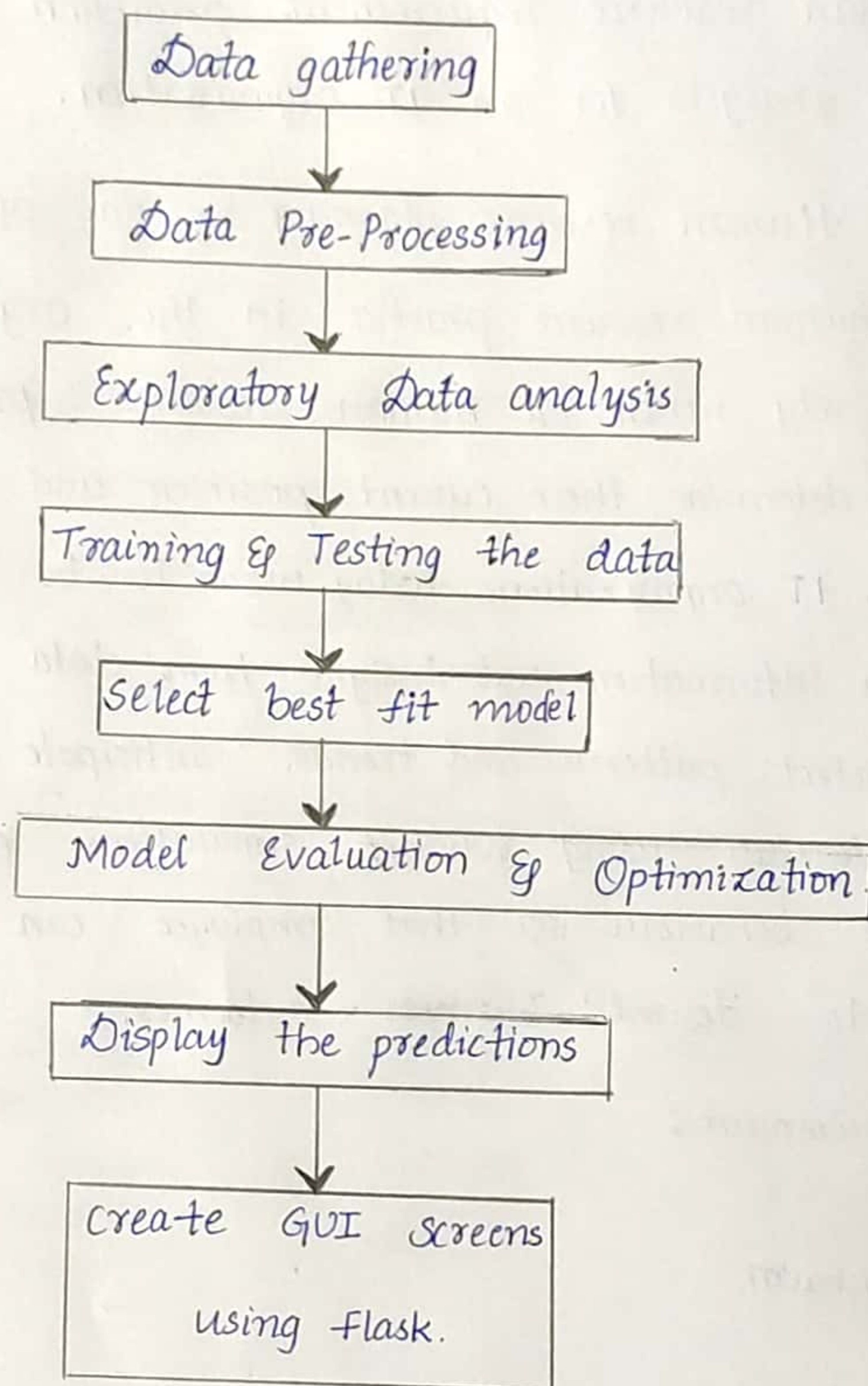
- python
- Jupyter, pycharm
- Flask,  
HTML,  
CSS.

Scope:

Human Resource Prediction plays an important role in human resource management because it translates the objectives of the organization into number of workers needed by determining the human resource required by the IT organization to achieve its strategic goals. ML gives the best prediction and analysis of this huge unstructured data

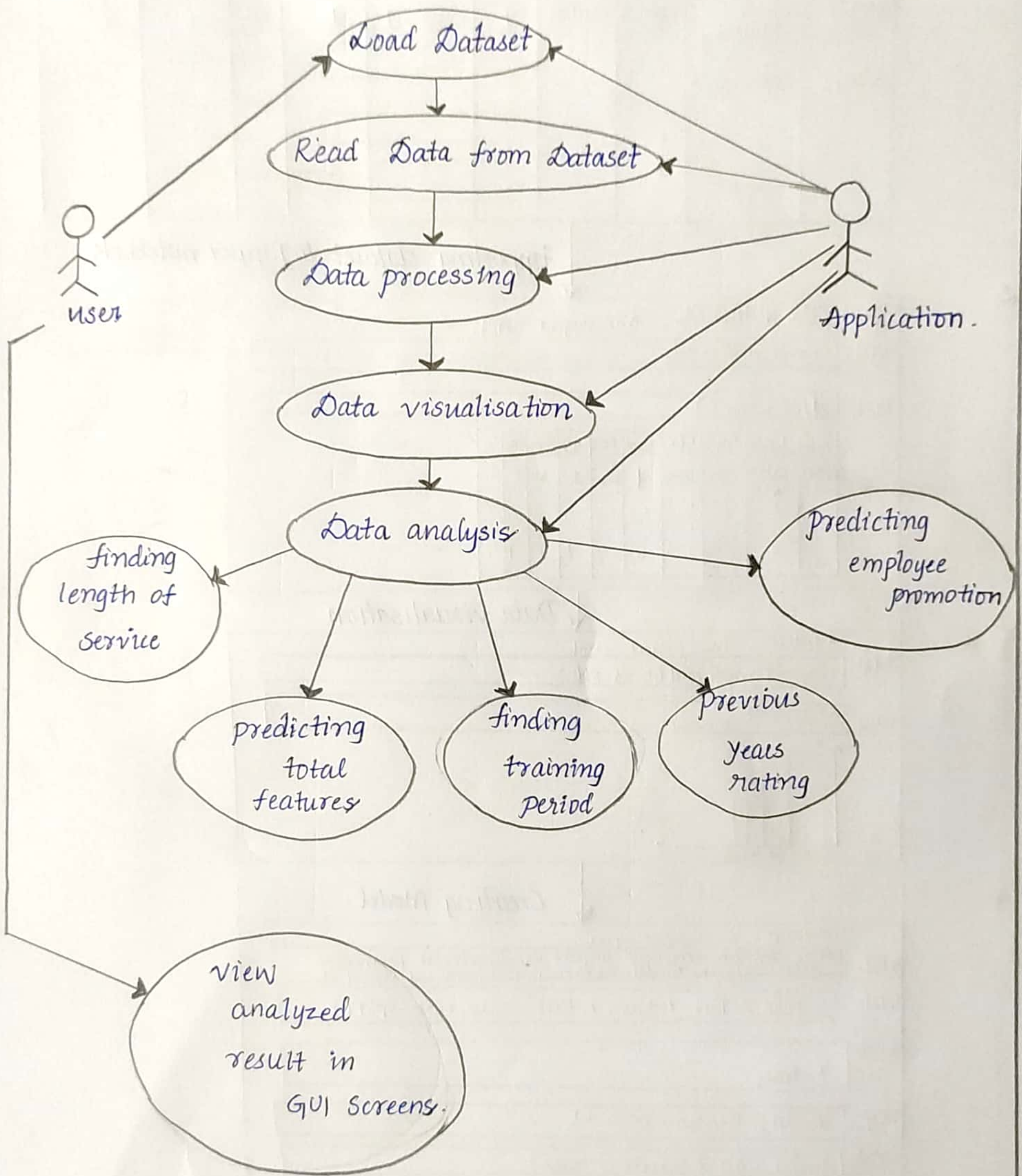


## Control flow Diagram:





# Use Case Diagrams





# Ideation Map:

1.

Employee id	department	Region	Edu-cation	Gender	Recruitment chan.	no of trainings	age	Previous yr-ratin	length of service
65438	Sales & Marketing	region_7	Masters	f	Sourcing	1	20	1	1
65141	operations	'	'	'	'	'	'	'	'
'	'	'	'	'	'	'	'	'	'
'	'	'	'	'	'	'	'	'	'

importing dataset to Jupyter notebook

2.

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In[1]: import pandas pd

In[2]: df.describe()

Empid	depart	Region	Edu	Gen	Rec	chan	Re	Age	len
65438	Sales & Marketing	region_7	Masters	f	Sourcing	1	20	1	1
'	'	'	'	'	'	'	'	'	'
'	'	'	'	'	'	'	'	'	'

Data visualisation

3.

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In[3]: import matplotlib.pyplot as plt

In[4]: X = np.array()  
Y = np.array()  
plt.show



Creating Model

4.

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In[5]: from sklearn.ensemble import RandomForestRegression  
from sklearn.model\_selection import train\_test\_split

In[6]: X\_train, X\_test, Y\_train, Y\_test = train\_test\_split()

In[7]: X\_train

In[8]: model = RandomForestRegression

In[9]: model.fit(X\_train, Y\_train)



create GUI screens.

Education :	<input type="text"/>
Recruitment change :	<input type="text"/>
No of trainings:	<input type="text"/>
No of awards :	<input type="text"/>
previous years rating :	<input type="text"/>
length of service:	<input type="text"/>
<input type="button" value="predict"/>	