School: .... Campus: ....

Academic Year: .... Subject Name: .... Subject Code: ....

Semester: .... Program: .... Branch: .... Specialization: ....

Date: ....

Applied and Action Learning
(Learning by Doing and Discovery)

Name of the Experiement :

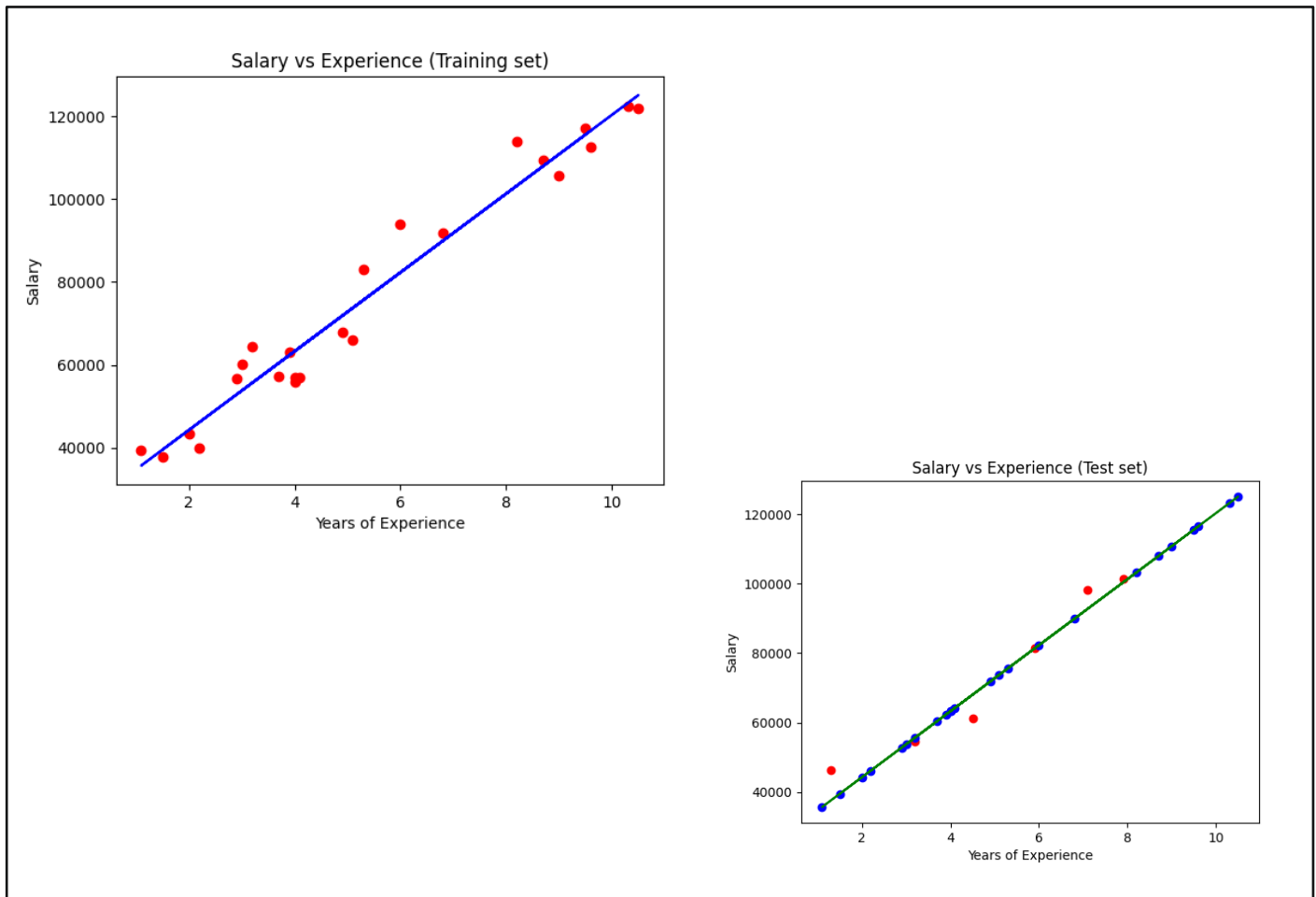## * Coding Phase: Pseudo Code / Flow Chart / Algorithm

```python
import numpy as np; import matplotlib.pyplot as plt; import pandas as pd
df = pd.read_csv('contents/Exp_Salary.csv')
X, y = df[['YearsExperience']], df['Salary']
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LinearRegression
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.2, random_state = 12)

regressor = LinearRegression()
regressor.fit(X_train, y_train)
y_pred = regressor.predict(X_test)  # Vector
plt.scatter(X_train, y_train, color = 'red')
plt.plot(X_train, regressor.predict(X_train), color = 'blue')
plt.title('Salary vs Experience (Training set)')
plt.xlabel('Years of Experience')
plt.ylabel('Salary')
plt.show()
y_pred2=regressor.predict(X_train)  # Vector
plt.scatter(X_test, y_test, color = 'red')
plt.scatter(X_train, y_pred2, color = 'blue')
plt.plot(X_train, y_pred2, color = 'green')
plt.title('Salary vs Experience (Test set)')
plt.xlabel('Years of Experience')
plt.ylabel('Salary')
plt.show()
from sklearn.metrics import mean_absolute_error, mean_squared_error, r2_score
y_pred = regressor.predict(X.iloc[[0]])
```

As applicable according to the experiment.
Two sheets per experiment (10-20) to be used.

* Implementation Phase: Final Output (no error)

Salary vs Experience (Training set)

Salary vs Experience (Test set)

ASSESSMENT

Rubrics	Full Mark	Marks Obtained	Remarks
Concept	10		
Planning and Execution/ Practical Simulation/ Programming	10		
Result and Interpretation	10		
Record of Applied and Action Learning	10		
Viva	10		
Total	**50**		

Signature of the Student:

Name :

Signature of the Faculty:

Regn. No. :

As applicable according to the experiment. Two sheets per experiment (10-20) to be used.