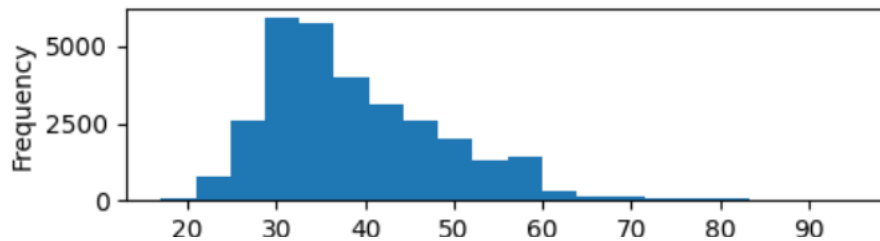


## **Customer Subscription Prediction**

1) What is the distribution of the customer ages ?

DISTRIBUTION PLOT :-



2) What is the relationship between customer age and subscription ?

Customer age and Subscription are in an direct relationship .  
Coefficient value – 0.03

3) Are there any other factors that are correlated with subscription ?

All the features are related to the Subscription with certain Coefficient value available in the correlation matrix or the heat map.

4) What is the accuracy of the logistic regression model ?

The Accuracy of the Logistic Regression model is 89%.

5) What are the most important features for the logistic regression model ?

Most important features :-

- Contact
- Duration
- Pdays
- Previous
- Poutcome
- Emprate

- Priceidx
- Euribor3m
- Nremployed

6) What is the precision of the logistic regression model ?

The logistic regression model has a precision of 65%.

7) What is the recall of the logistic regression model ?

The Logistic regression model has a recall score of 39%.

8) What is the f1-score of the logistic regression model ?

The Logistic Regression Model has a f-1 score of 49%.

9) How can you improve the performance of the logistic regression model ?

Ways to improve performance: -

- Tuning Hyperparameters
- Using regularization
- Using ensembling

10) What are the limitations of the logistic regression model ?

- Overfitting
- Limited prediction range
- Sensitivity to outliers

