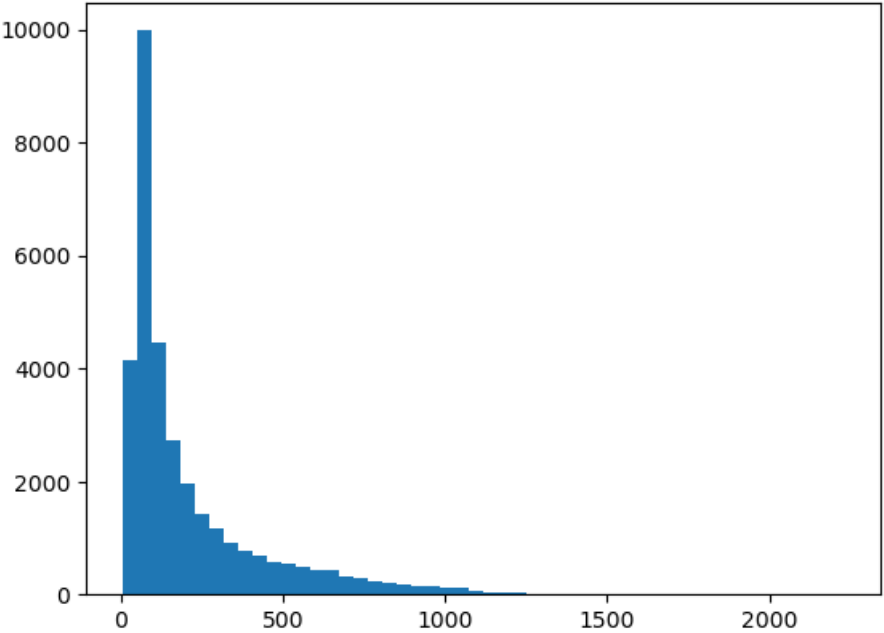
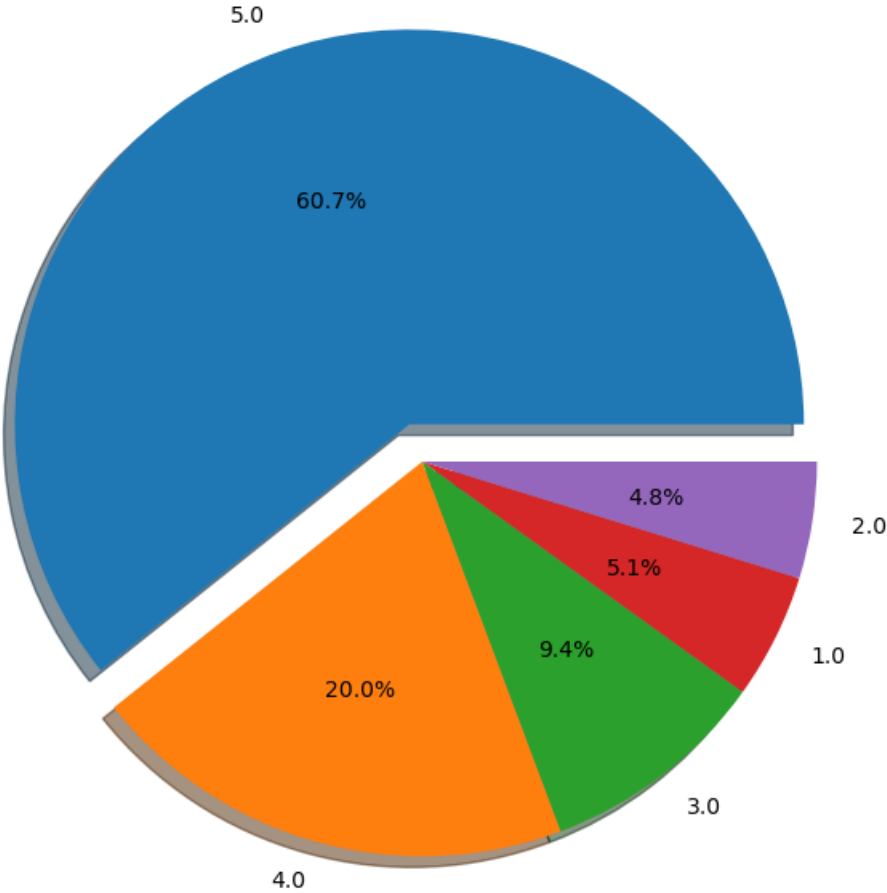
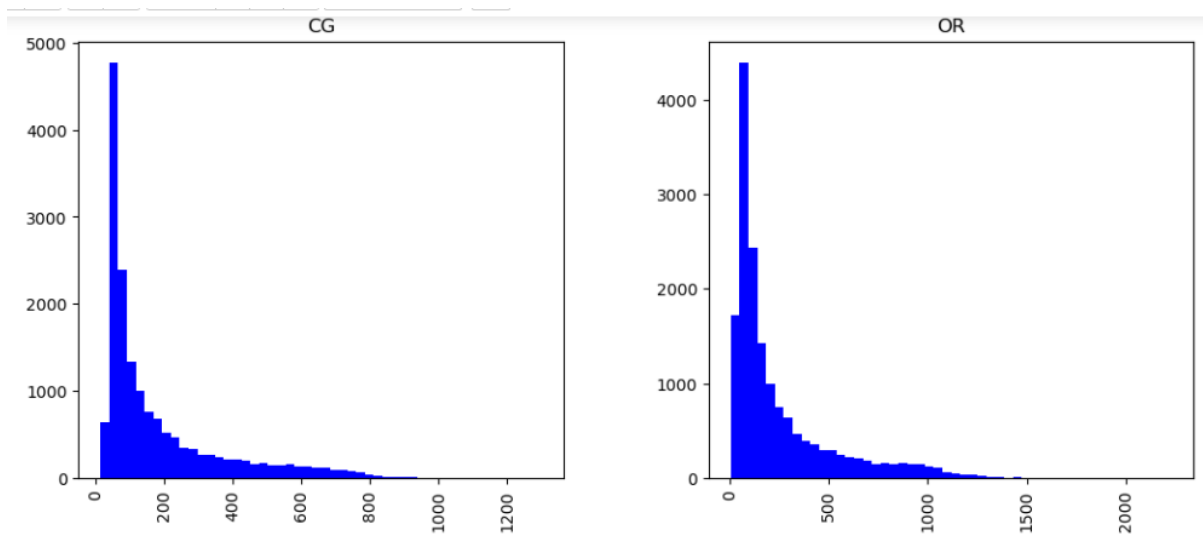


Proportion of each rating





Conclusion

```
In [78]: print('Performance of various ML models:')
print('\n')
print('Logistic Regression Prediction Accuracy:',str(np.round(accuracy_score(label_test,lr_pred)*100,2)) + '%')
print('K Nearest Neighbors Prediction Accuracy:',str(np.round(accuracy_score(label_test,knn_pred)*100,2)) + '%')
print('Decision Tree Classifier Prediction Accuracy:',str(np.round(accuracy_score(label_test,dtree_pred)*100,2)) + '%')
print('Random Forests Classifier Prediction Accuracy:',str(np.round(accuracy_score(label_test,rfc_pred)*100,2)) + '%')
print('Support Vector Machines Prediction Accuracy:',str(np.round(accuracy_score(label_test,svc_pred)*100,2)) + '%')
print('Multinomial Naive Bayes Prediction Accuracy:',str(np.round(accuracy_score(label_test,predictions)*100,2)) + '%')
```

Performance of various ML models:

Logistic Regression Prediction Accuracy: 85.31%
K Nearest Neighbors Prediction Accuracy: 57.56%
Decision Tree Classifier Prediction Accuracy: 72.48%
Random Forests Classifier Prediction Accuracy: 83.16%
Support Vector Machines Prediction Accuracy: 87.25%
Multinomial Naive Bayes Prediction Accuracy: 83.89%

```
l25]: from sklearn.metrics import accuracy_score

#Example evaluation
accuracy = accuracy_score(df['label'], df['predicted_label'])
print(f"BERT Model Accuracy: {accuracy}%")
```

BERT Model Accuracy: 93.95%