```
Fitting 3 folds for each of 54 candidates, totalling 162 fits
Model: KNN
Accuracy: 0.24
Classification Report:
              precision    recall  f1-score   support

           0       0.30      0.38      0.33        21
           1       0.21      0.29      0.24        17
           2       0.19      0.25      0.22        16
           3       0.35      0.25      0.29        24
           4       0.09      0.05      0.06        22

    accuracy                           0.24       100
   macro avg       0.23      0.24      0.23       100
weighted avg       0.23      0.24      0.23       100

--------------------------------------------------
Model: Decision Tree
Accuracy: 0.22
Classification Report:
              precision    recall  f1-score   support

           0       0.32      0.29      0.30        21
           1       0.29      0.29      0.29        17
           2       0.12      0.19      0.14        16
           3       0.39      0.29      0.33        24
           4       0.05      0.05      0.05        22

    accuracy                           0.22       100
   macro avg       0.23      0.22      0.22       100
weighted avg       0.24      0.22      0.23       100

--------------------------------------------------
Model: Random Forest
Accuracy: 0.25
Classification Report:
              precision    recall  f1-score   support
```

```
              precision    recall  f1-score   support

           0       0.33      0.29      0.31        21
           1       0.14      0.18      0.16        17
           2       0.27      0.44      0.33        16
           3       0.31      0.21      0.25        24
           4       0.21      0.18      0.20        22

    accuracy                           0.25       100
   macro avg       0.25      0.26      0.25       100
weighted avg       0.26      0.25      0.25       100

--------------------------------------------------
Model: Logistic Regression
Accuracy: 0.18
Classification Report:
              precision    recall  f1-score   support

           0       0.15      0.10      0.12        21
           1       0.19      0.35      0.25        17
           2       0.15      0.31      0.20        16
           3       0.11      0.04      0.06        24
           4       0.29      0.18      0.22        22

    accuracy                           0.18       100
   macro avg       0.18      0.20      0.17       100
weighted avg       0.18      0.18      0.16       100

--------------------------------------------------
Model: XGBoost
Accuracy: 0.26
Classification Report:
              precision    recall  f1-score   support

           0       0.33      0.38      0.36        21
           1       0.18      0.24      0.21        17
           2       0.22      0.25      0.24        16
           3       0.37      0.29      0.33        24
```

```
              4       0.18      0.14      0.15        22

    accuracy                           0.26       100
   macro avg       0.26      0.26      0.26       100
weighted avg       0.26      0.26      0.26       100

--------------------------------------------------
Model: Gradient Boosting
Accuracy: 0.23
Classification Report:
              precision    recall  f1-score   support

           0       0.33      0.33      0.33        21
           1       0.09      0.12      0.10        17
           2       0.24      0.38      0.29        16
           3       0.27      0.12      0.17        24
           4       0.25      0.23      0.24        22

    accuracy                           0.23       100
   macro avg       0.24      0.24      0.23       100
weighted avg       0.24      0.23      0.23       100

--------------------------------------------------
```

In [40]:

```python
# Plotting bar graph for accuracies
model_names = list(results.keys())
accuracies = [results[model]['Accuracy'] for model in model_names]

```

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Run Code