

```
dataset_fe = dataset.copy()
dataset_fe = dataset_fe.drop(columns=["blue", "dual_sim", "four_g", "three_g", "touch_screen", "wifi",
"sc_h", "sc_w", "m_dep", "mobile_wt"])
```

```
dataset_group = dataset.copy()
dataset_group = dataset[["battery_power", "int_memory", "n_cores", "pc", "px_width", "ram", "bs43tw",
"price_range"]]
```

```
print(list(dataset.columns))
decisonTree_graph_accuary(dataset, "gini", "tree0_dataset")
decisonTree_graph_accuary(dataset, "entropy", "tree0_dataset")
```

```
['battery_power', 'blue', 'clock_speed', 'dual_sim', 'fc', 'four_g', 'int_memory', 'm_dep', 'mobile_wt',
'n_cores', 'pc', 'px_height', 'px_width', 'ram', 'sc_h', 'sc_w', 'talk_time', 'three_g', 'touch_screen',
'wifi', 'price_range', 'bs43tw']
```

```
Criterion: gini
Accuracy is: 81.0
Criterion: entropy
Accuracy is: 84.33333333333334
```

```
print(list(dataset_fe.columns))
decisonTree_graph_accuary(dataset_fe, "gini", "tree1_dataset_fe")
decisonTree_graph_accuary(dataset_fe, "entropy", "tree1_dataset_fe")
```

```
['battery_power', 'clock_speed', 'fc', 'int_memory', 'n_cores', 'pc', 'px_height', 'px_width', 'ram',
'talk_time', 'price_range', 'bs43tw']
```

```
Criterion: gini
Accuracy is: 81.66666666666667
Criterion: entropy
Accuracy is: 84.16666666666667
```

```
print(list(dataset_group.columns))
decisonTree_graph_accuary(dataset_group, "gini", "tree2_dataset_group")
decisonTree_graph_accuary(dataset_group, "entropy", "tree2_dataset_group")

['battery_power', 'int_memory', 'n_cores', 'pc', 'px_width', 'ram', 'bs43tw', 'price_range']
Criterion: gini
Accuracy is: 82.83333333333334
Criterion: entropy
Accuracy is: 81.33333333333333
```

```
**Removed outliers -> filt_df_c
print(list(filt_df_c.columns))
decisonTree_graph_accuary(filt_df_c, "gini", "tree3_filt_df_c")
decisonTree_graph_accuary(filt_df_c, "entropy", "tree3_filt_df_c")

['battery_power', 'int_memory', 'n_cores', 'pc', 'px_width', 'ram', 'bs43tw', 'price_range']
Criterion: gini
Accuracy is: 80.70539419087137
Criterion: entropy
Accuracy is: 80.08298755186722
```