



Data Analysis on STC

JULY
2023





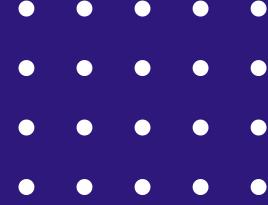
01. **Indtroduction**

02. **Data visualization**

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04. **Recommendation system**

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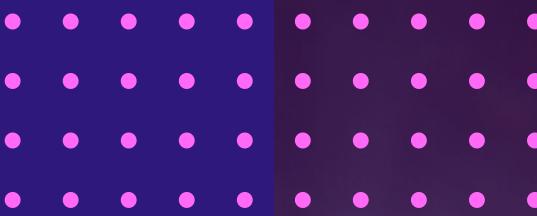


Introduction

In this data analysis journey, we analyzed a dataset about Jawwy TV users to understand relations between variables such as program class, program genre and duration in seconds against the flag variable (HD), Then we performed Linear regression to predict the expected watch time for the next 2 months, Finally we made a recommendation system to recommend TV shows for users that watched (Moana) movie



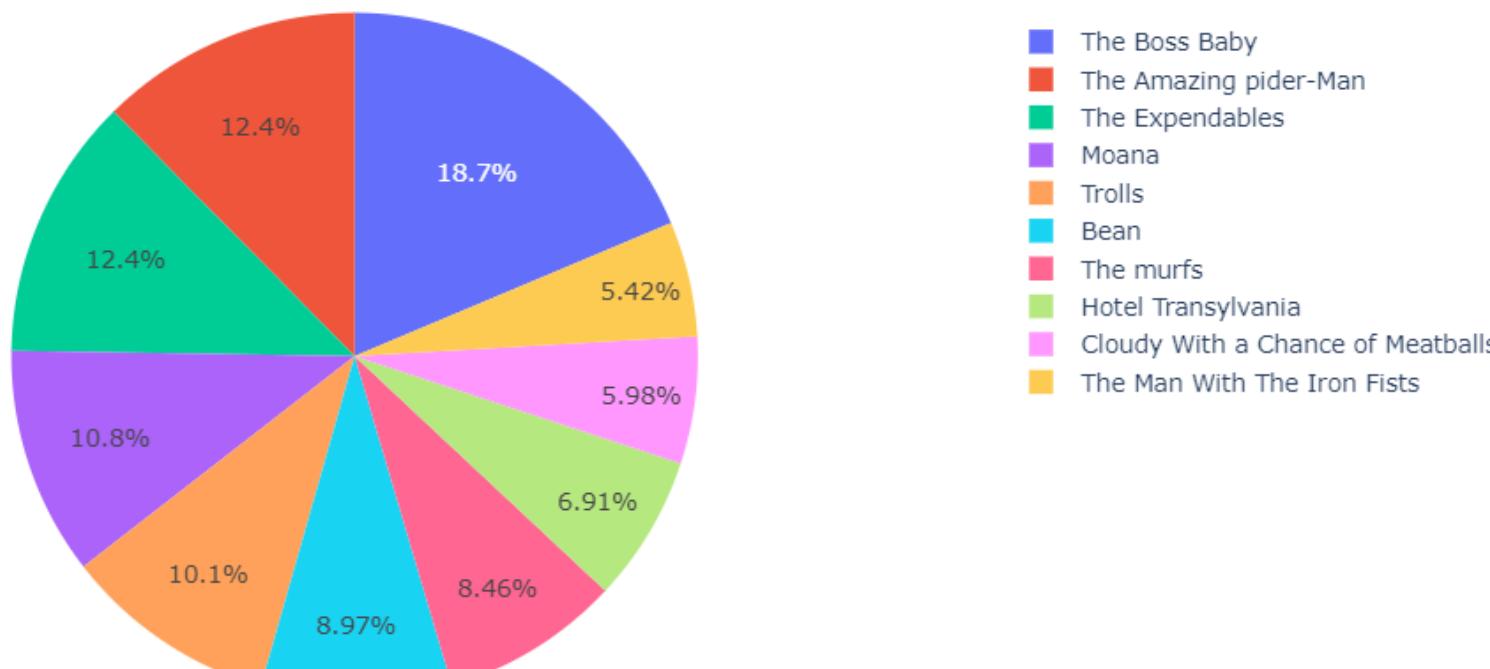
Data visualization





01

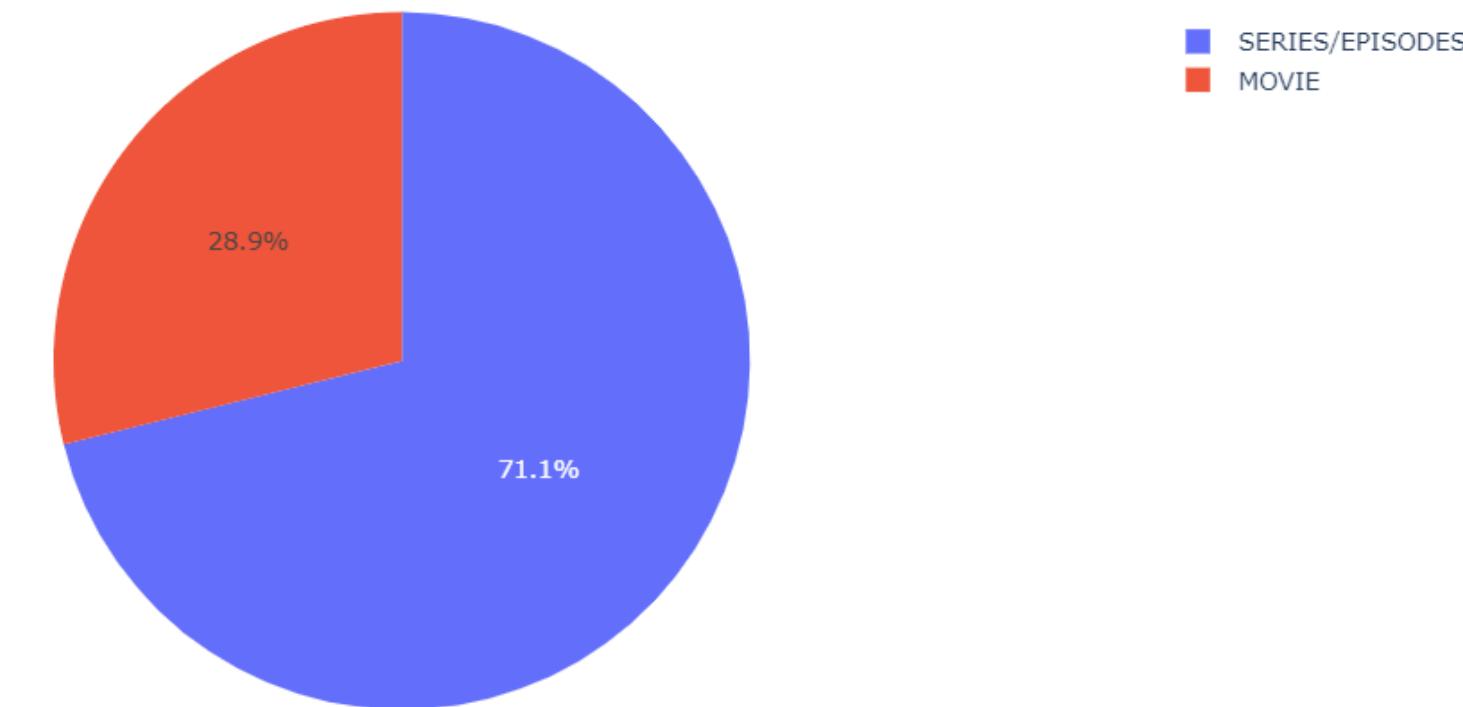
top 10 programs in total watch time in hours



This pie chart shows the top 10 shows in terms of watch time

02

Total duration spent by program_class

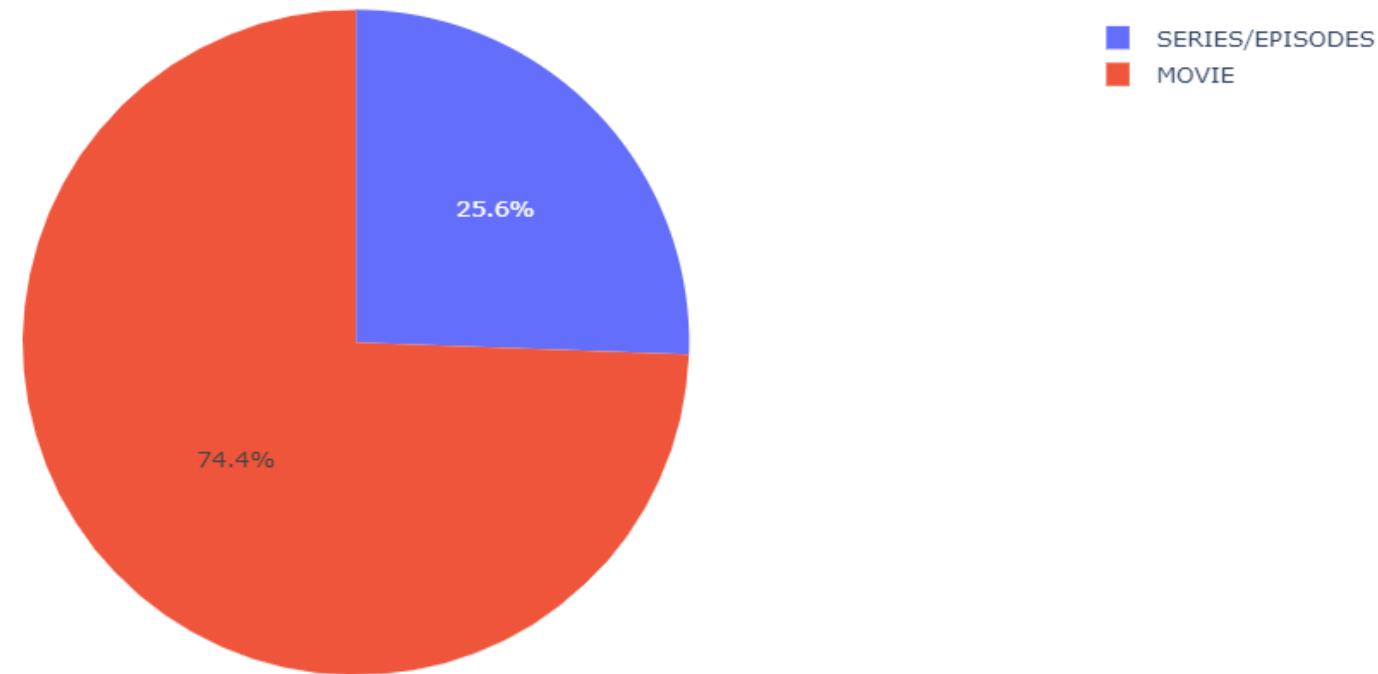


This pie chart shows total duration spent according to program class



03

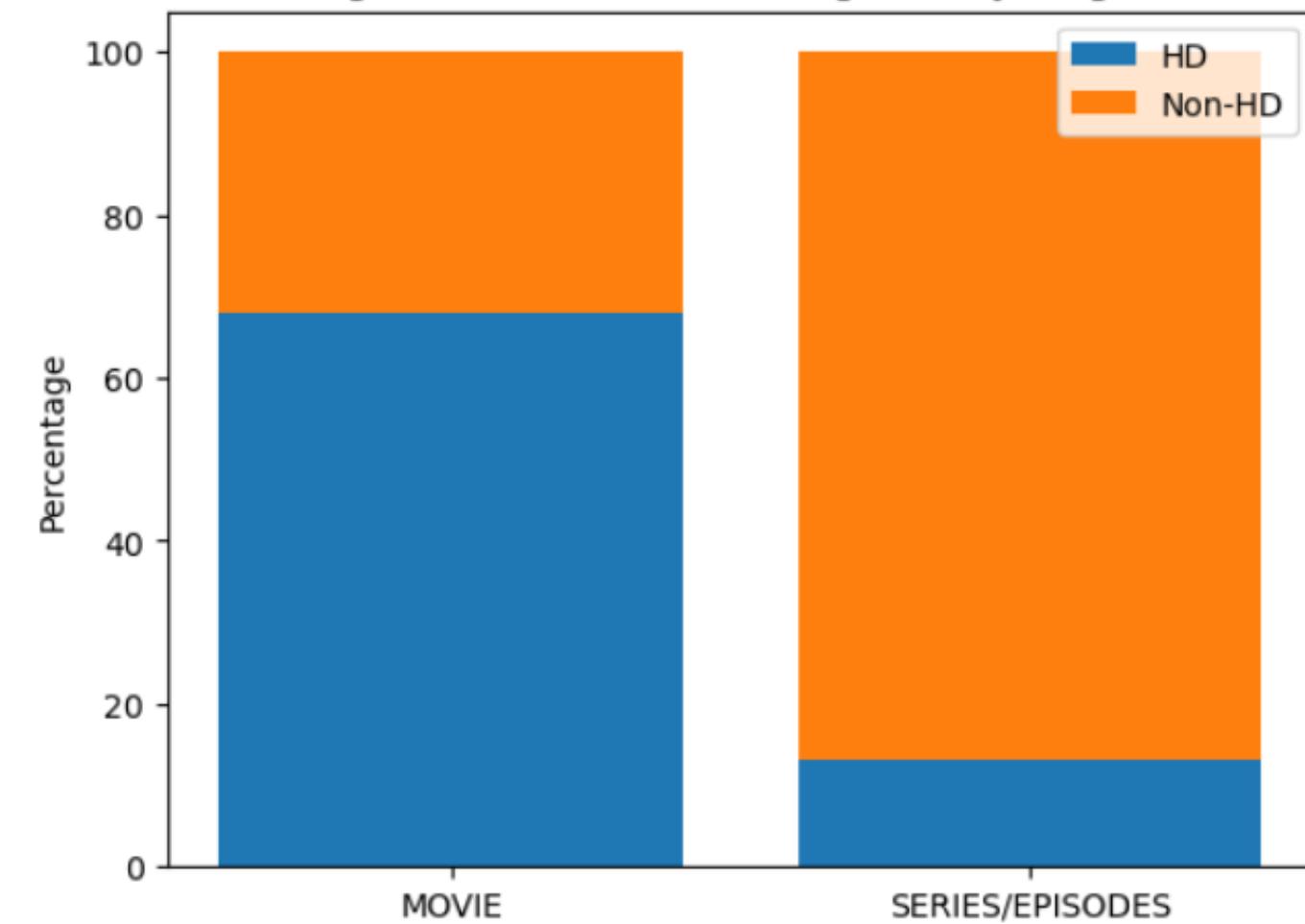
Total Users watching by program_class



This pie chart shows total users watching according to program class

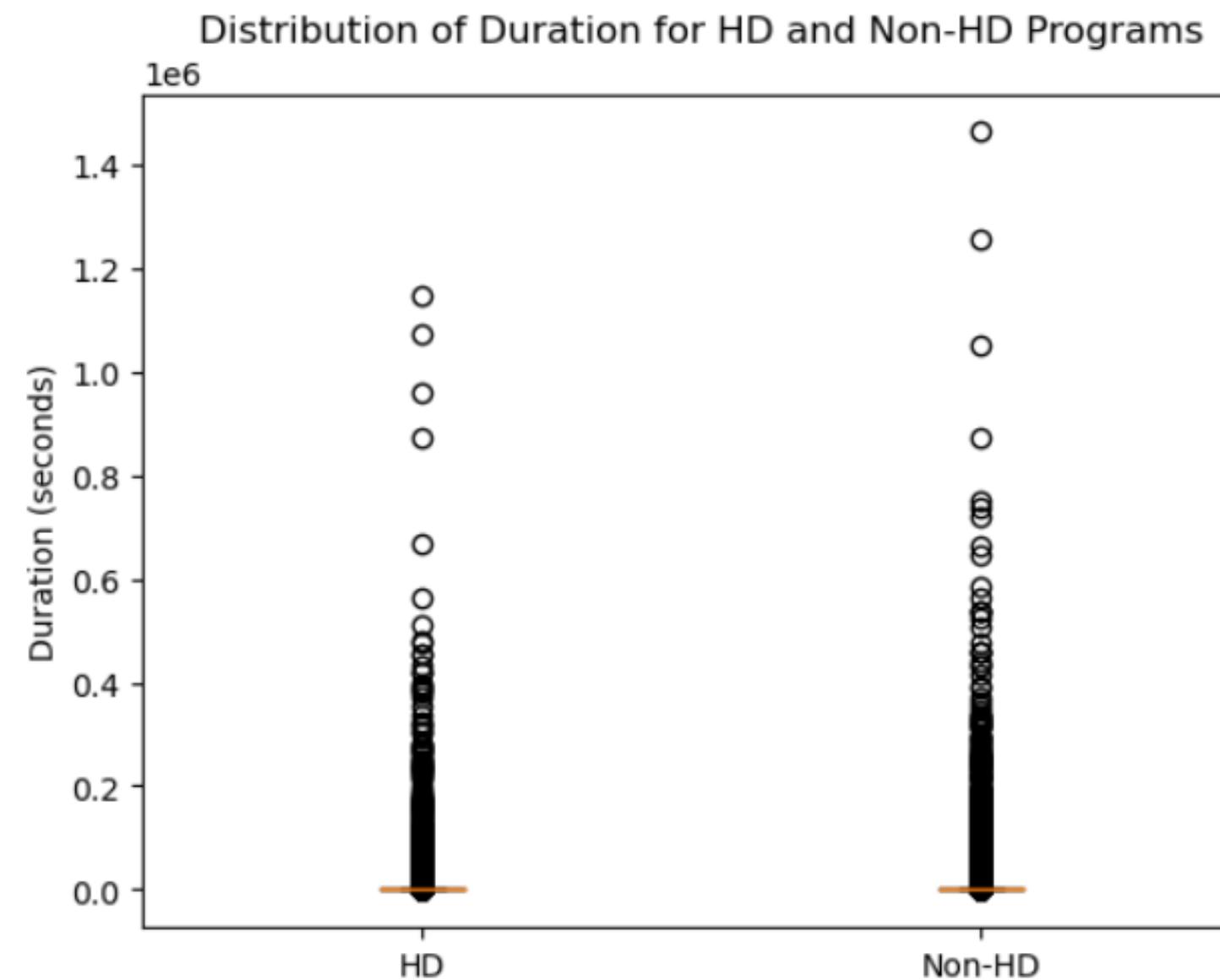
04

Percentage of HD and Non-HD Programs by Program Class



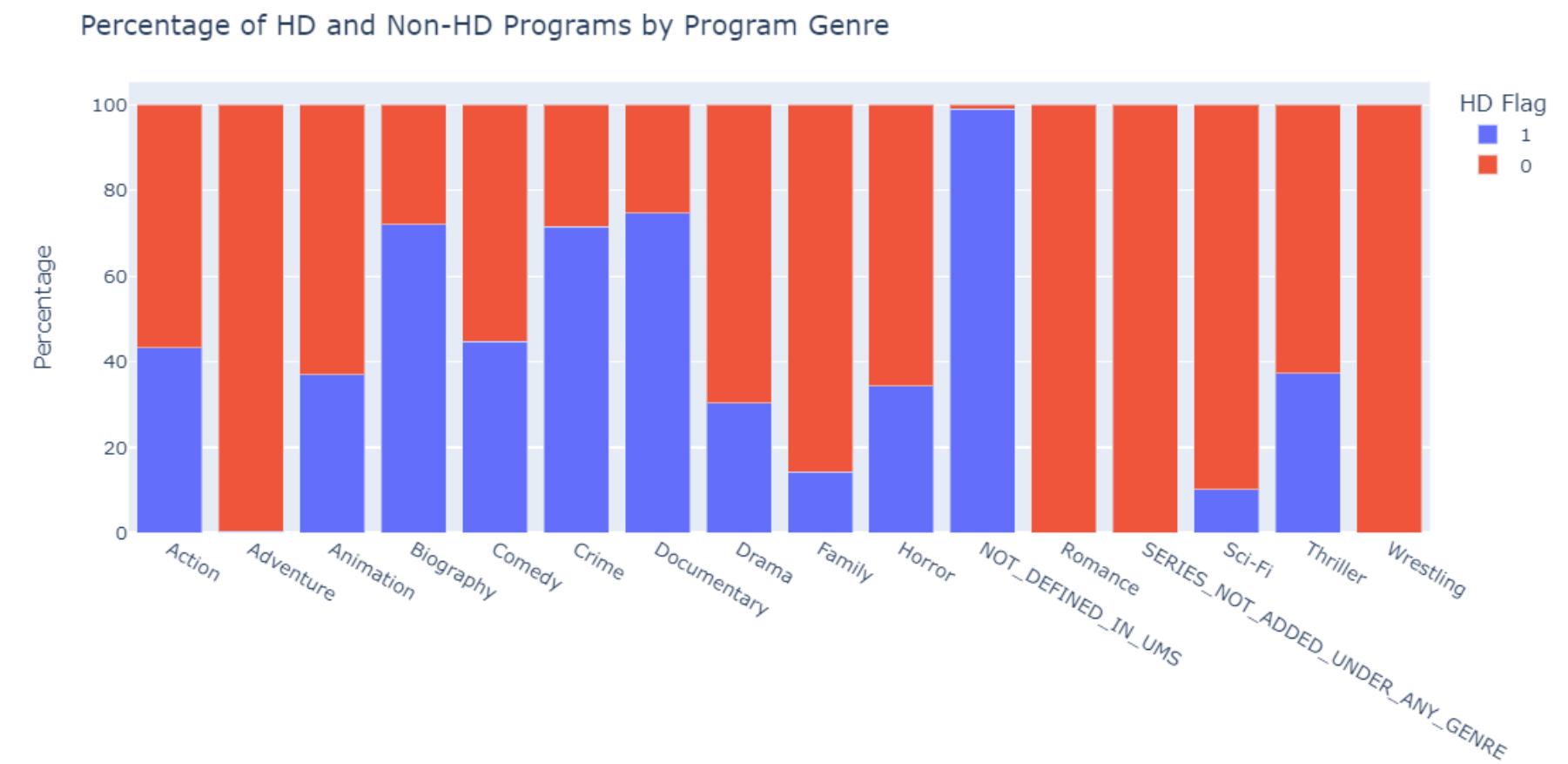
This bar chart shows the variance in HD vs non-HD watches By program class

05



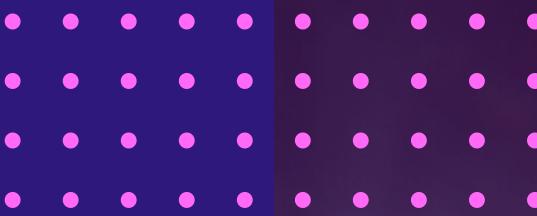
This chart shows how watch duration differs for HD vs non-HD

06



This chart shows the percentage of HD vs non-HD watch by program genre

Prediction model





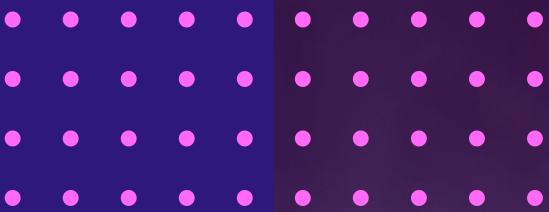
We performed linear regression model, The output is a list of predicted values for the next two months of Total Watch Time in hours

```
# Print the forecast for the next two months
print(forecast)
```

```
[1] 1010.64105896 985.10682681 959.57259465 934.03836249 1012.71272081
[2] 987.17848865 961.64425649 936.11002434 910.57579218 989.25015049
[3] 963.71591834 938.18168618 912.64745403 887.11322187 965.78758018
[4] 940.25334803 914.71911587 1075.46911534 1049.93488318 1128.60924149
[5] 1103.07500934 1077.54077718 1052.00654502 1026.47231287 1105.14667118
[6] 1079.61243902 1054.07820687 1028.54397471 1003.00974256 1081.68410087
[7] 1056.14986871 1030.61563656 1005.0814044 979.54717224 1058.22153056
[8] 1032.6872984 1007.15306624 981.61883409 956.08460193 1231.09857914
[9] 1205.56434699 1180.03011483 1154.49588268 1128.96165052 1207.63600883
[10] 1182.10177668 1156.56754452 1131.03331236 1105.49908021 1184.17343852
[11] 1158.63920636 1133.10497421 1107.57074205 1082.03650989 1160.71086821
[12] 1135.17663605 1109.64240389 1084.10817174 1058.57393958 1137.24829789]
```



Recommendation system





For the recommendation system, we recommended top 5 shows for people that watched (Moana), these were the results:

Top 5 Recommendations for all users who watched 'Moana'

Teenage Mutant Ninja Turtles The Pulverizer 3.6102683283572636

Dora And Friends: Into The City Magical Mermaid Adventure 3.126706178799245

Supergirl For The Girl Who Has Everything 3.500336329335613

Bubble Guppies Puppy Love! 3.6799719539534044

Yo Gabba Gabba! Find 3.666664879280438



Summary



Top 3 shows according to watch time in hours are : the boss baby, the amazing spider man and the expendables

Users spend time on TV series more than movies but most users watch movies more often

Users who watch movie watch in HD more often than users who watch TV series

Top 3 program genres that users watch in HD are : documentary, crime and Biography

