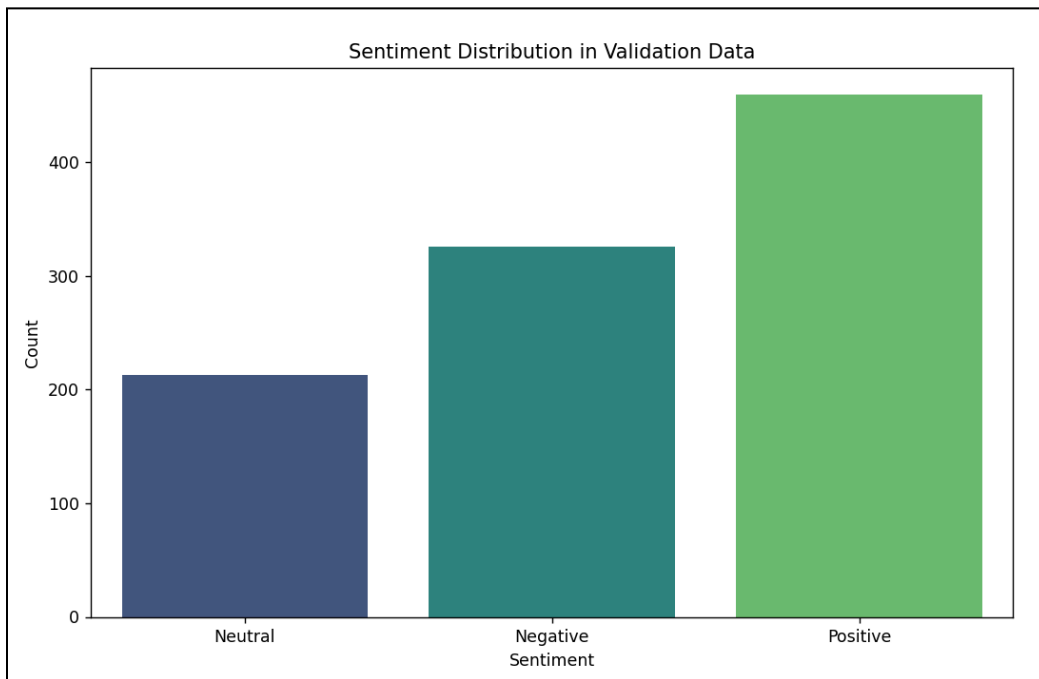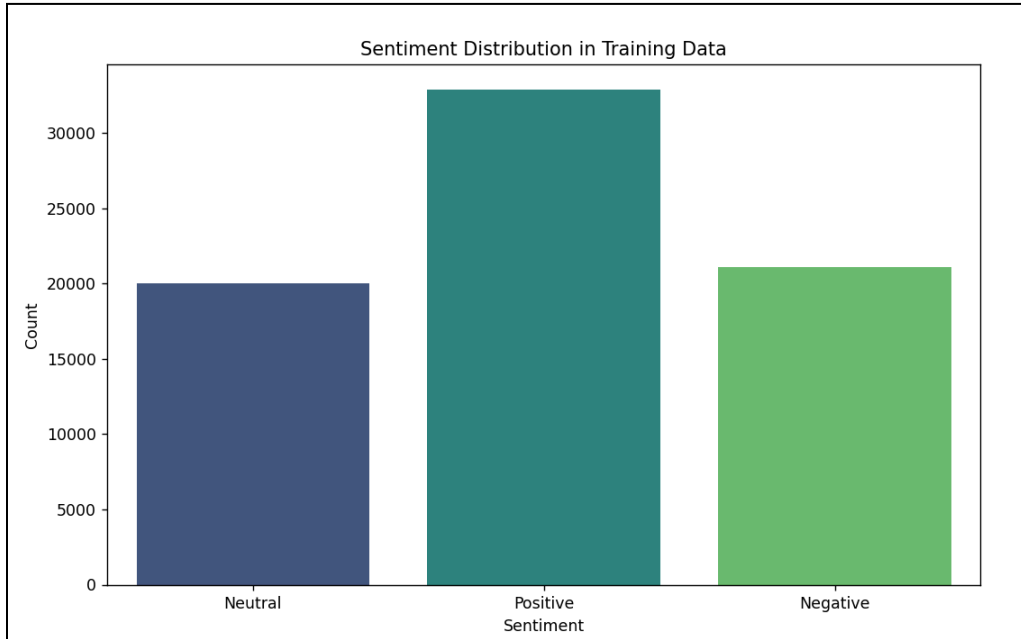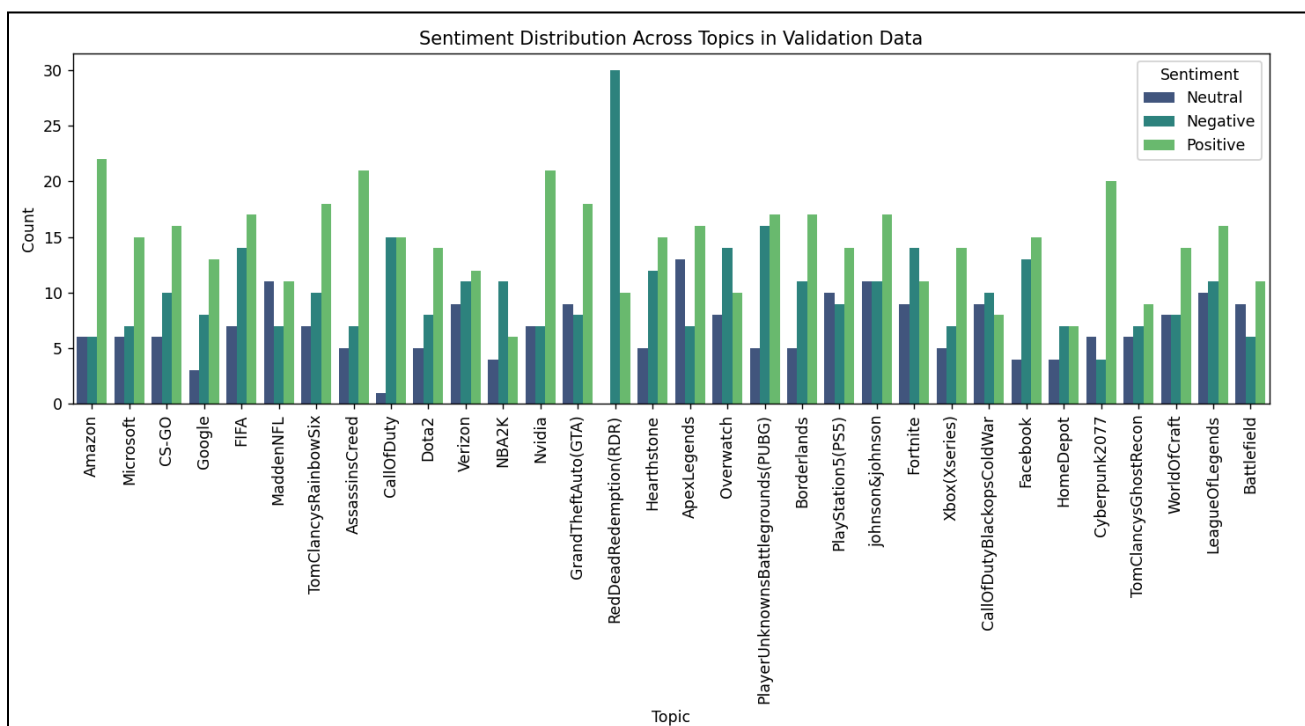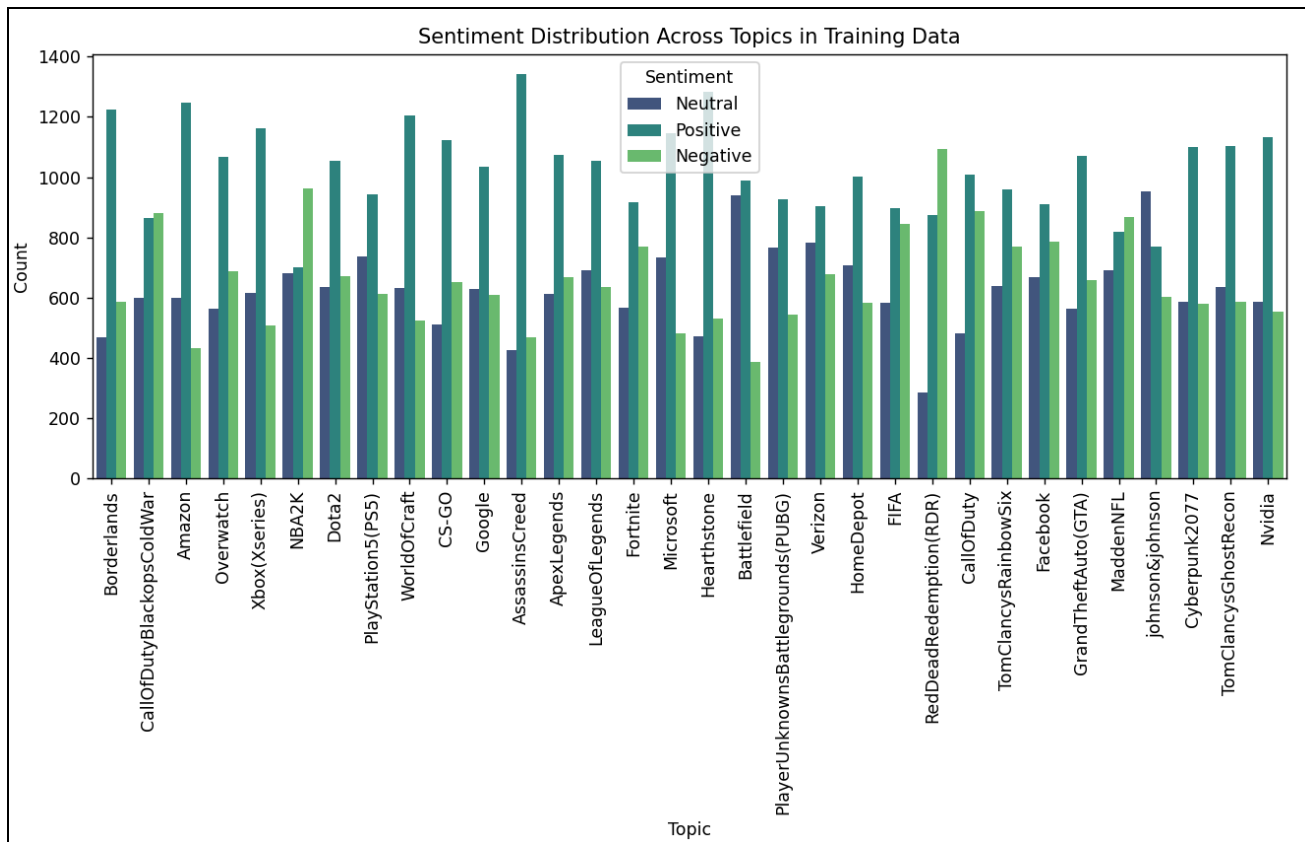# Task-4

Ques: Analyze and visualize sentiment patterns in social media data to understand public opinion and attitudes towards specific topics or brands.

Analysis Charts:

Sentiment Distribution Across Topics in Training Data

Sentiment Distribution Across Topics in Validation Data

Word Cloud for Positive Tweets

Word Cloud for Negative Tweets

Numerical Anlaysis:

```
Top Topics with Positive Sentiment:
Topic
AssassinsCreed            1342
Hearthstone               1284
Amazon                    1247
Borderlands               1226
WorldOfCraft              1204
Xbox(Xseries)             1162
Microsoft                 1147
Nvidia                    1133
CS-GO                     1123
TomClancysGhostRecon      1102
Name: count, dtype: int64
```

```
Top Topics with Negative Sentiment:
Topic
RedDeadRedemption(RDR)    1092
NBA2K                      961
CallOfDuty                 888
CallOfDutyBlackopsColdWar  879
MaddenNFL                  868
FIFA                       844
Facebook                   785
Fortnite                   768
TomClancysRainbowSix       768
Overwatch                  688
Name: count, dtype: int64
```

```
Overall Sentiment Distribution:
Sentiment
Positive    32904
Negative    21075
Neutral     20016
Name: count, dtype: int64
```

```
Top Topics with Positive Sentiment:
Topic
Amazon                                 22
AssassinsCreed                         21
Nvidia                                 21
Cyberpunk2077                          20
TomClancysRainbowSix                   18
GrandTheftAuto(GTA)                    18
johnson&johnson                        17
FIFA                                   17
PlayerUnknownsBattlegrounds(PUBG)      17
Borderlands                            17
Name: count, dtype: int64
```

```
Top Topics with Negative Sentiment:
Topic
RedDeadRedemption(RDR)                 30
PlayerUnknownsBattlegrounds(PUBG)      16
CallOfDuty                             15
Fortnite                               14
FIFA                                   14
Overwatch                              14
Facebook                               13
Hearthstone                            12
Borderlands                            11
LeagueOfLegends                        11
Name: count, dtype: int64
```

```
Overall Sentiment Distribution:
Sentiment
Positive    460
Negative    326
Neutral     213
Name: count, dtype: int64
PS C:\Users\TANYA>
```