

Project Synopsis

Name - Sahil Garje

Class - XII A1

Roll No. - 1

Subject - Informatics Practices(065)

Project Name - '*The Gaming Nemesis*'

Based on - Python

Contents:

- ◆ Certificate
- ◆ Acknowledgement
- ◆ Aim
- ◆ Introduction
- ◆ Coding (with output)
- ◆ Pie Chart
- ◆ Merits
- ◆ Demerits
- ◆ Conclusion

Certificate:

This is to certify that **Sahil Garje** of class **XII**
has worked under my supervision on project
'The Gaming Nemesis' and completed it to my full satisfaction

Mrs. Revati

Acknowledgement:

- ◆ I am thankful to my Informatics Practices teacher Mrs. Revati who helped and guided me while successfully completing this project .
- ◆ Also I would like to thank CBSE for giving ample amount of time for the completion of this project.

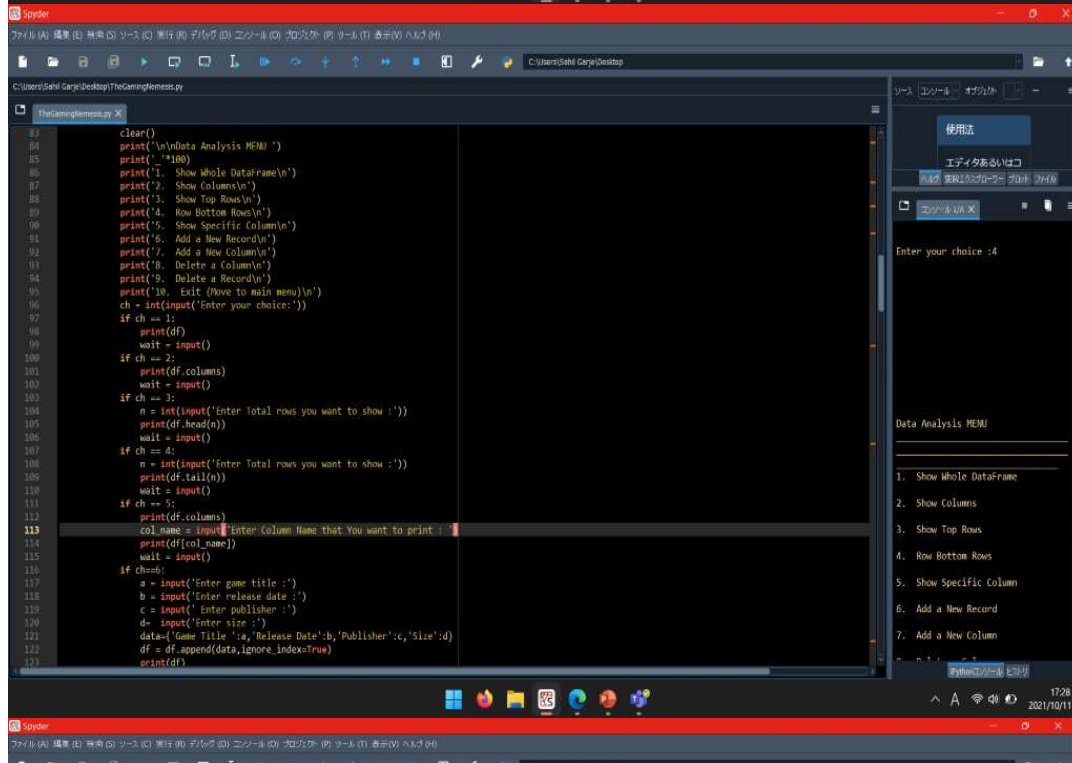
Aim:

- ◆ This project titled 'The Gaming Nemesis' aims at helping newbie gamers and PC enthusiasts to find or to build a PC that matches their requirements for High/Mid/Low end gaming .
- ◆ Also this Project will help the already 'gaming geeks' to edit the list of games and also the 'Pie chart of gaming'.

Introduction:

- ◆ This Project has been made to :
 - A} Learn about the types of PC games
 - B} Knowing the System Requirements of different types of PC games
 - C} Giving out a list of low/high end games
 - D} Giving Developer Options (to edit option C})
 - E} Display Graphs of Top gaming companies and the most popular games.

Project Code:



```
TheGamingNemeses.py
101 print('7. Add a New Column\n')
102 print('8. Delete a Column\n')
103 print('9. Delete a Record\n')
104 print('10. Exit (Move to main menu)\n')
105 ch = int(input('Enter your choice:'))
106 if ch == 1:
107     print(df)
108     wait = input()
109     if ch == 2:
110         print(df.columns)
111         wait = input()
112     if ch == 3:
113         n = int(input('Enter total rows you want to show :'))
114         print(df.head(n))
115         wait = input()
116     if ch == 4:
117         n = int(input('Enter Total rows you want to show :'))
118         print(df.tail(n))
119         wait = input()
120     if ch == 5:
121         print(df.columns)
122         col_name = input('Enter Column Name that You want to print : ')
123         print(df[col_name])
124         wait = input()
125     if ch==6:
126         a = input('Enter game title :')
127         b = input('Enter release date :')
128         c = input('Enter publisher :')
129         d = input('Enter size :')
130         data={'Game Title':a,'Release Date':b,'Publisher':c,'Size':d}
131         df = df.append(data,ignore_index=True)
132         print(df)
133         wait=input()
134     if ch==7:
135         col_name = input('Enter new column name :')
136         col_value = int(input('Enter default column value :'))
137         df[col_name]=col_value
138         print(df)
139         print('\n\n Press any key to continue....')
140         wait=input()
141
```

ソース コントロール オフライン

使用法

エディタあるいはコマンド

Enter your choice :4

Data Analysis MENU

1. Show Whole DataFrame
2. Show Columns
3. Show Top Rows
4. Row Bottom Rows
5. Show Specific Column
6. Add a New Record
7. Add a New Column

```
wait=input()
200
201 if ch==8:
202     col_name =input('Enter column Name to delete :')
203     del df[col_name]
204     print(df)
205     print('\n\n Press any key to continue....')
206     wait=input()
207
208 if ch==9:
209     index_no =int(input('Enter the Index Number that You want to delete :'))
210     df = df.drop(df.index[index_no])
211     print(df)
212     print('\n\n Press any key to continue....')
213     wait = input()
214
215 if ch == 10:
216     break
217
218 def graph():
219     df = pd.read_csv(csv_file)
220     g = df.groupby('Name')
221     x = df['Name'].unique()
222     y = g['Global Sales'].unique()
223     plt.plot(x, labels=x, autopct='% .2f', startangle=90)
224     plt.xticks(rotation='vertical')
225     plt.title('The 6 Biggest games ever!')
226     plt.show()
227
228 def main_menu():
229     clear()
230     introduction()
231     while True:
232         clear()
233         print('MAIN MENU ')
234         print("\n100")
235         print()
236         print('1. Types Of Games\n')
237         print('2. List of High End Games\n')
238         print('3. List of Low End Games\n')
239
```

ソース コントロール オフライン

MAIN MENU

1. Types Of Games
2. List of High End Games
3. List of Low End Games
4. Developer options(high end)
5. Developer options(low end)

```
239 print('2. List of High End Games\n')
240 print('3. List of Low End Games\n')
241 print('4. Developer options(high end)\n')
242 print('5. Developer options(low end)\n')
243 print('6. Graph of the 6 most selling games\n')
244 print('7. Exit\n')
245 choice = int(input('Enter your choice :'))
246 if choice==1:
247     Digital Games()
248     wait=input()
249     ch = int(input('Enter the gaming genre you want to learn more about:'))
250     if ch==1:
251         print('...')
252         Action games are just that-games where the player is in control of and at the center of the action
253         Subgenres:
254         Platformer games get their name from the fact that the game's character interacts with platforms (usually running, jumping, or falling) throughout the gameplay
255         II]Shooter
256         Shooters let players use weapons to engage in the action, with the goal usually being to take out enemies or opposing players
257         II]Fighting
258         Fighting games like Mortal Combat and Street Fighter II focus the action on combat, and in most cases, hand-to-hand combat
259         IV]Beat-em up
260         Beat-em up games, or brawlers, also focus on combat, but instead of facing a single opponent, players face wave after wave of enemies
261         V]Stealth
262         Stealth games usually encourage players to engage in the action covertly
263         ...
264
265     if ch==2:
266         print('...')
267         Adventure games are categorized by the style of gameplay, not the story or content.
268         Subgenres:
269         I]Visual novels
270         Extremely popular in Japan, most visual novels require players to build up character traits or statistics to advance the gameplay
271         II]Interactive movie
272         Laserdisc and CD-ROM technology allowed for the introduction of the interactive movie.
273         III]Real-time 3D
274         The latest evolution of adventure games is real time 3D. Instead of pre-rendered scenes, players interact in a real-time 3D video game world
275         ...
276
277
```

ソース コントロール オフライン

MAIN MENU

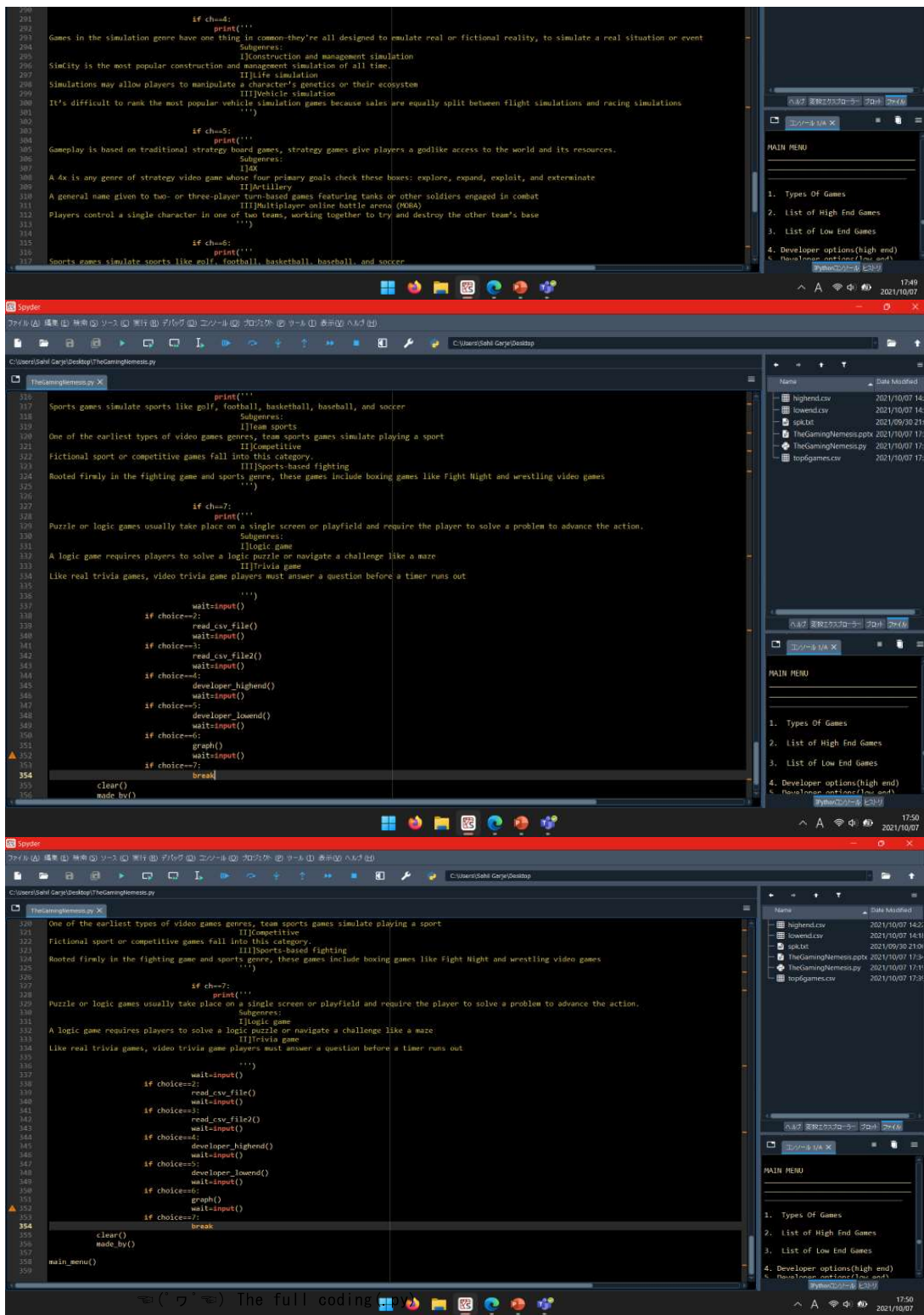
1. Types Of Games
2. List of High End Games
3. List of Low End Games
4. Developer options(high end)
5. Developer options(low end)

```
277
278
279 if ch==3:
280     print('...')
281     Probably the second-most popular game genre, role-playing games, or RPGs, mostly feature medieval or fantasy settings.
282     Subgenres:
283     I]Action RPGs
284     Action role-playing games take game elements of both action games and action-adventure games
285     II]MMORPGs
286     MMORPGs involve hundreds of players actively interacting with each other in the same world, and typically, all players share the same or a similar objective.
287     III]Roguelikes
288     The only other game genre based on the name of the game that inspired it, Rogue was a 2D computer game and dungeon crawler from 1980
289     ...
290
```

ソース コントロール オフライン

MAIN MENU

1. Types Of Games
2. List of High End Games
3. List of Low End Games
4. Developer options(high end)
5. Developer options(low end)

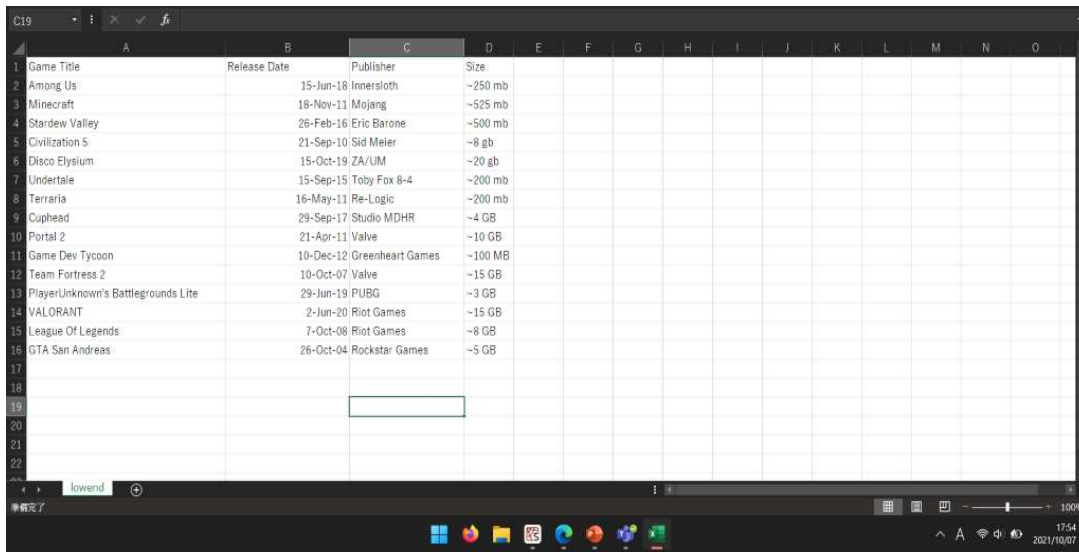


Full Project code(.py extension)

CSV Files used :

Low end csv





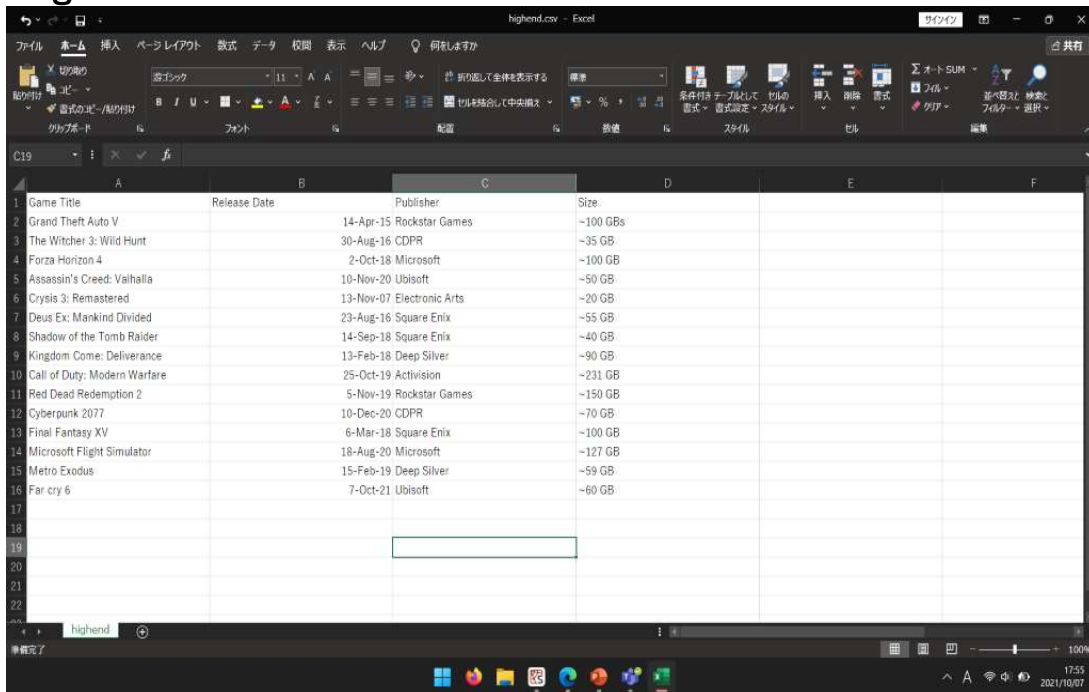
A screenshot of a Windows desktop environment. A spreadsheet application is open, displaying a list of games. The spreadsheet has columns for Game Title, Release Date, Publisher, and Size. The data is as follows:

Game Title	Release Date	Publisher	Size
Among Us	15-Jun-18	Innersloth	~250 mb
Minecraft	18-Nov-11	Mojang	~525 mb
Stardew Valley	26-Feb-16	Eric Barone	~500 mb
Civilization 5	21-Sep-10	Sid Meier	~8 gb
Disco Elysium	15-Oct-19	ZA/UM	~20 gb
Undertale	15-Sep-15	Toby Fox 8-4	~200 mb
Terraria	16-May-11	Re-Logic	~200 mb
Cuphead	29-Sep-17	Studio MDHR	~4 GB
Portal 2	21-Apr-11	Valve	~10 GB
Game Dev Tycoon	10-Dec-12	Greenheart Games	~100 MB
Team Fortress 2	10-Oct-07	Valve	~15 GB
PlayerUnknown's Battlegrounds Lite	29-Jun-19	PUBG	~3 GB
VALORANT	2-Jun-20	Riot Games	~15 GB
League Of Legends	7-Oct-08	Riot Games	~8 GB
GTA San Andreas	26-Oct-04	Rockstar Games	~5 GB



lowend

High end csv



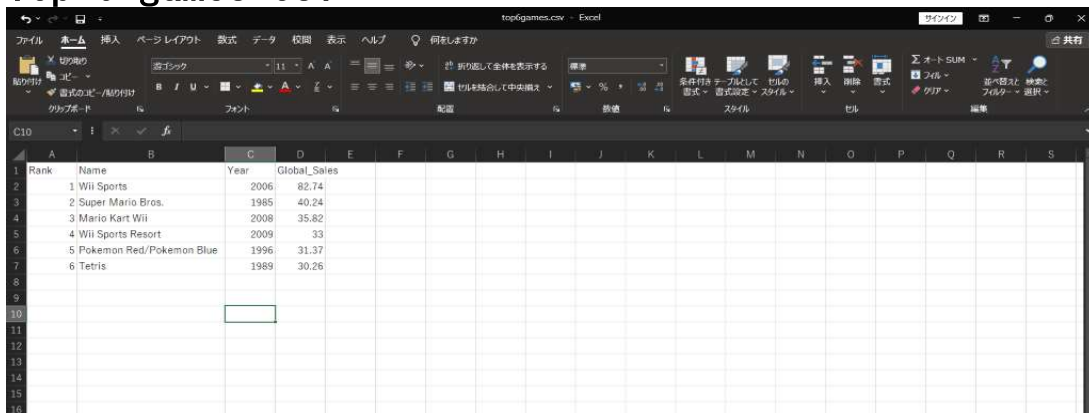
A screenshot of a Windows desktop environment. A spreadsheet application is open, displaying a list of high-end games. The spreadsheet has columns for Game Title, Release Date, Publisher, and Size. The data is as follows:

Game Title	Release Date	Publisher	Size
Grand Theft Auto V	14-Apr-15	Rockstar Games	~100 GBs
The Witcher 3: Wild Hunt	30-Aug-16	CDPR	~35 GB
Forza Horizon 4	2-Oct-18	Microsoft	~100 GB
Assassin's Creed: Valhalla	10-Nov-20	Ubisoft	~50 GB
Crysis 3: Remastered	13-Nov-07	Electronic Arts	~20 GB
Deus Ex: Mankind Divided	23-Aug-16	Square Enix	~55 GB
Shadow of the Tomb Raider	14-Sep-18	Square Enix	~40 GB
Kingdom Come: Deliverance	13-Feb-18	Deep Silver	~90 GB
Call of Duty: Modern Warfare	25-Oct-19	Activision	~231 GB
Red Dead Redemption 2	5-Nov-19	Rockstar Games	~150 GB
Cyberpunk 2077	10-Dec-20	CDPR	~70 GB
Final Fantasy XV	6-Mar-18	Square Enix	~100 GB
Microsoft Flight Simulator	18-Aug-20	Microsoft	~127 GB
Metro Exodus	15-Feb-19	Deep Silver	~59 GB
Far cry 6	7-Oct-21	Ubisoft	~60 GB



highend

Top 6 games csv



A screenshot of a Windows desktop environment. A spreadsheet application is open, displaying a list of the top 6 games. The spreadsheet has columns for Rank, Name, Year, and Global Sales. The data is as follows:

Rank	Name	Year	Global Sales
1	Wii Sports	2006	82.74
2	Super Mario Bros.	1985	40.24
3	Mario Kart Wii	2008	35.82
4	Wii Sports Resort	2009	33
5	Pokemon Red/Pokemon Blue	1996	31.37
6	Tetris	1989	30.26



top6ga...

Output:

Introduction Screen

```

                                NAMASTE!!! 🙏

Gaming 🎮 is just like living a whole different life than your 'usual'.
Thanks to the ever increasing demand , gaming has become a job for many .. a 'gamer job'.
Now there's so much in gaming to tell about .. so many gaming genres
and such contrasting system requirements that it is hard for newbie gamers to cope up with.
In this project i will use the help of Python 🐍 (csv and matplotlib) and try to help newbie
gamers and PC enthusiasts to give as much information as i can on gaming.
The whole project is divided into four major parts i.e. reading, analysis, visualization and editing.
All these parts are further divided into menus for easy navigation.

(Nemesis means 'an arch enemy' 🦹 .. this project is called nemesis because it was an enemy to my 'gaming time' 🕒)
```

Main menu

```

MAIN MENU
-----
1. Types Of Games
2. List of High End Games
3. List of Low End Games
4. Developer options(high end)
5. Developer options(low end)
6 Graph of the 6 most selling games
```

7. Exit

Enter your choice :|

Option 1(types of games)

Enter your choice :1

Types of video games

- 1.Action games 🤖
- 2.Adventure games 🧐
- 3.Role-playing games 🐉
- 4.Simulation games 🚗
- 5.Strategy games 🧠
- 6.Sports games 🏈
- 7.Puzzle games 🧩

Press any key to continue.....

Option 2(List of high end games)

Enter your choice :2

	Game Title	Release Date	Publisher	Size
0	Grand Theft Auto V	14-Apr-15	Rockstar Games	~100 GBs
1	The Witcher 3: Wild Hunt	30-Aug-16	CDPR	~35 GB
2	Forza Horizon 4	2-Oct-18	Microsoft	~100 GB
3	Assassin's Creed: Valhalla	10-Nov-20	Ubisoft	~50 GB
4	Crysis 3: Remastered	13-Nov-07	Electronic Arts	~20 GB
5	Deus Ex: Mankind Divided	23-Aug-16	Square Enix	~55 GB
6	Shadow of the Tomb Raider	14-Sep-18	Square Enix	~40 GB
7	Kingdom Come: Deliverance	13-Feb-18	Deep Silver	~90 GB
8	Call of Duty: Modern Warfare	25-Oct-19	Activision	~231 GB
9	Red Dead Redemption 2	5-Nov-19	Rockstar Games	~150 GB
10	Cyberpunk 2077	10-Dec-20	CDPR	~70 GB
11	Final Fantasy XV	6-Mar-18	Square Enix	~100 GB
12	Microsoft Flight Simulator	18-Aug-20	Microsoft	~127 GB
13	Metro Exodus	15-Feb-19	Deep Silver	~59 GB
14	Far cry 6	7-Oct-21	Ubisoft	~60 GB

Option 3(List of low end games)

Enter your choice :3

	Game Title	Release Date	Publisher	Size
0	Among Us	15-Jun-18	Innersloth	~250 mb
1	Minecraft	18-Nov-11	Mojang	~525 mb
2	Stardew Valley	26-Feb-16	Eric Barone	~500 mb
3	Civilization 5	21-Sep-10	Sid Meier	~8 gb
4	Disco Elysium	15-Oct-19	ZA/UM	~20 gb
5	Undertale	15-Sep-15	Toby Fox 8-4	~200 mb
6	Terraria	16-May-11	Re-Logic	~200 mb
7	Cuphead	29-Sep-17	Studio MDHR	~4 GB
8	Portal 2	21-Apr-11	Valve	~10 GB
9	Game Dev Tycoon	10-Dec-12	Greenheart Games	~100 MB
10	Team Fortress 2	10-Oct-07	Valve	~15 GB
11	PlayerUnknown's Battlegrounds Lite	29-Jun-19	PUBG	~3 GB
12	VALORANT	2-Jun-20	Riot Games	~15 GB
13	League Of Legends	7-Oct-08	Riot Games	~8 GB
14	GTA San Andreas	26-Oct-04	Rockstar Games	~5 GB

Option 4(Developer (high end))

Data Analysis MENU

1. Show Whole DataFrame
2. Show Columns
3. Show Top Rows
4. Row Bottom Rows
5. Show Specific Column
6. Add a New Record
7. Add a New Column
8. Delete a Column
9. Delete a Record
10. Exit (Move to main menu)

Enter your choice:|

Option 5(Developer (low end))

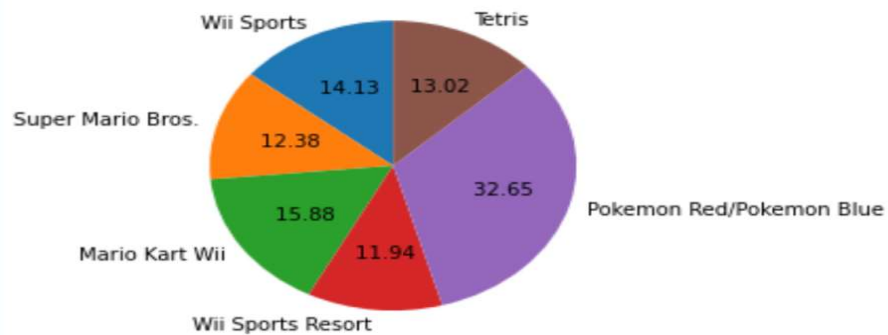
Data Analysis MENU

1. Show Whole DataFrame
2. Show Columns
3. Show Top Rows
4. Row Bottom Rows
5. Show Specific Column
6. Add a New Record
7. Add a New Column
8. Delete a Column
9. Delete a Record
10. Exit (Move to main menu)

Enter your choice:|

Option 6(Graph of 6 most selling games)

The 6 Biggest games ever!



Option 7(Exit screen)

Enter your choice :7

```
School Name      : Army Public School,Ahmednagar  
session          : 2021-22
```

```
Thanks for evaluating my Project.
```

```
Press any key to continue.....
```

```
In [78]: |
```

Merits:

Merits:

- ◇ Can edit the list of games
- ◇ Navigation panes instead of showing everything at once
- ◇ Beginner Friendly
- ◇ Has a variety of games(low/high)

Demerits:

Demerits:

- ◇ Needs constant updates as the tech changes
- ◇ Not much useful for non-beginners
- ◇ Focus on consoles & cloud gaming isn't there
- ◇ To use it on another PC CSV file path always needs to be changed.

References:

References

- ◇ Webliography:

11 <https://www.youtube.com/watch?v=...>

1} <https://www.tutorindiaip.com/cs-xii-pra/project-synopsis-cbse-class-12/>

2} <https://www.youtube.com/watch?v=cleVKR-vy0c>

3} <https://www.slideshare.net/JasmeetSingh38/ip-project-50175201>

Bibliography:

Sumita Arora(2020) , "Informatics Practices Class XII" , Dhanpat Rai & Co.

Sumita Arora(2019) , "Informatics Practices Class XI" , Dhanpat Rai & Co.

Conclusion:

Conclusion:

- ◇ This project is like a symbiotic relation between **Beginners** and **non-beginners** . The beginners use the information provided to them so that they can learn the basics of gaming from a 'hardware' view and the non-beginners add up to this information using their own knowledge.