**2CS404**

**PROGRAMMING FOR SCIENTIFIC COMPUTING**

**INNOVATIVE ASSIGNMENT**

PREPARED BY :

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PACKAGES INSTALLED :

* **pygame** (using pip command)

**pip install pygame**

PS C:\Users\Administrator\Desktop\SEM-IV\PROGRAMMING FOR SCIENTIFIC COMPUTING\LPW> **pip install pygame**

Requirement already satisfied: pygame in c:\users\administrator\appdata\local\programs\python\python39\lib\site-packages (2.0.1)

MODULES CORPORATED :

* **pygame** (creation of interactive GUI)
* **mixer** (musical effect)
* **random** (randomly generating the planets)
* **math** (calculate mathematical functions)
* **datetime** (date and time to be recorded on database)
* **sys** (command line argument)

FILE TO RUN (.py) :

* **main.py**

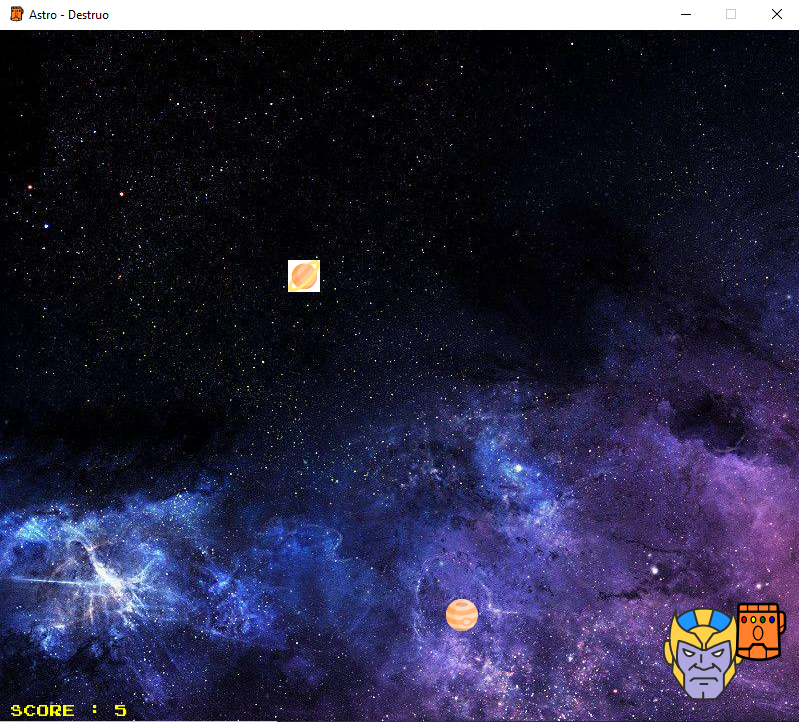
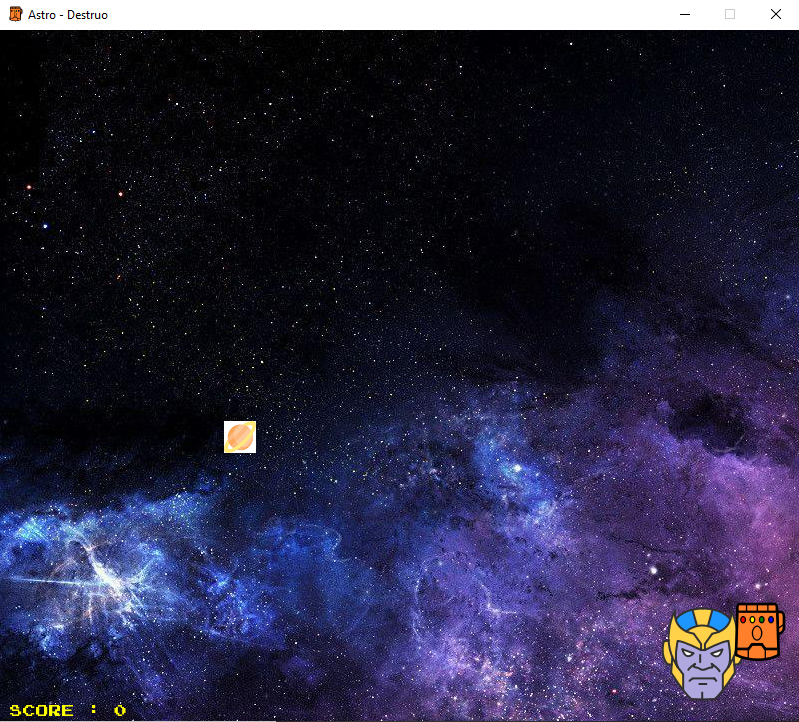
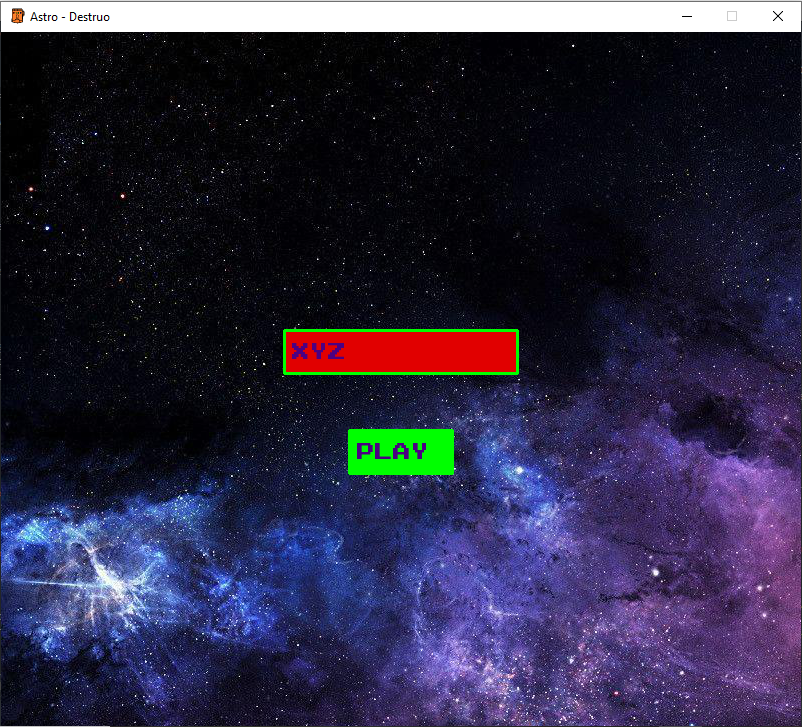
OTHER SUPPLEMENTARY FILES (zipped in a folder) :

* **Highscores.txt (database)**
* **background.jpg**
* **background.wav**
* **explosion.jpg**
* **explosion.wav**
* **gameover.wav**
* **gauntlet.jpg**
* **thanos.png**
* **jupiter.png**
* **saturn.png**
* **mercury.png**
* **laser.jpg**
* **laser.wav**

ABOUT THE PROJECT :

* Providing welcome page to the player in the form of buttons i.e. asking the player to enter its name and play button
* The game suits on “**BUBBLE SHOOT**” but what we have here is planets randomly getting rained and **“thanos”** (shooter) shoots the planets with the bullets to be fired (using **spacebar**) from the gauntlet and thus resulting into an explosion.
* Score is calculated based on number of explosions.
* As time passes, the frequency of the planets getting rained increases and thus on the other side score too will increase with an assigned factor.
* The game ends if any planet touches the bottom of the screen.
* As the game ends, the high scores are displayed on the screen and corresponding player’s score is what recorded in our database (file i.e. HighScores.txt) along with its name and date-time.
* At the end two more buttons one asking the player to play again and other one is simply to quit the game.

**SNIPPETS:**

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