Word Search Puzzle (P9) - Project Aim

- Interactive game based on Classic Word Search Puzzle
- Search a set of words embedded in a $N \times N$ matrix of characters

Different features

1. User selectable difficulty levels and Grid Size
2. Score
3. Time limit

Game Specifications

User Input

1. Size of grid - N
2. Difficulty level - Easy, Medium Hard

Game parameters

1. Length of longest word, L
2. Intersection of words, I
3. Display the set of words
4. Random filling of characters

	Level 1	Level 2	Level 3
	I- No Display - Yes	I- Yes Display - Yes	I- Yes Display - Yes
$N = 10$	WL - 4 No.of words =5	WL- 5 No. of words =8	WL - 5 No. of words =10
$N = 15$	WL - 6 No.of words =10	WL- 8 No. of words =15	WL - 8 No. of words =20

PyGame- GUI , Python - algorithm

Brief outline of work completed till now

Modules

- **charmat** - holds matrix and get and set word and random fill function
- **wordlist**
  - holds word list and strategically populates matrix with words
  - chooses words and places them according to the difficulty levels
- **GUI** - setting GUI parameters like size, colours, shapes etc

Work Done

- Completed above 3 modules with unit testing
- Difficulty level 1 - ensuring no overlaps and even spread of words
- GUI with fixed sized window, 2 mouse clicks selects the word

Brief outline of work to be done in future

Remaining Modules

- **gamestatus** - holding current status, score, found words, check validity of user selection
- **main** - uses above modules along with GUI and runs the game

Work Remaining

- To complete above two modules
- Build more features in GUI like resizing window, drag and select feature, user selectable options, sounds etc..
- adding more difficulty level with controlled overlap etc..