# Projects For Zense

Projects created by: Vidhish Trivedi (IMT2021055), For: Zense – Recruitment - 2022.

## List Of Projects:

- ➔ A shooter game (western style) – PyGame and Python with Tiled map editor.
- ➔ Password manager GUI – Python with Tkinter.
- ➔ A GUI application for quizzes – Python with Tkinter, using “Open Trivia Database” API.
- ➔ A playlist maker (web scraping) – Python with BeautifulSoup and Spotify API.

## 1.) Shooter Game:

- ➔ I used python along with pygame to create this game.
- ➔ Using the tile sets and images (found online), I created a level map using the Tiled map editor.
- ➔ Before creating this game, I had to learn pygame from the very basics and created a few other games also while doing so. These can also be found on my GitHub page.

### Controls And How to Play:

- ➔ Install the required modules (pygame and pytmx).
- ➔ Run the main.py file.
- ➔ To move the player around, use the arrow keys on the keyboard, to shoot bullets, use the space-bar key.
- ➔ The objective of the game is to navigate around and find enemies, then shoot them.
- ➔ There are two types of enemies, one is capable of close-range attacks and the other can shoot back. All enemies have a health of 3.
- ➔ The player has a health of 10.
- ➔ A “game over” or a “you win” screen is displayed as applicable, if the player health reaches 0 or you manage to kill all the enemies.
- ➔ Collision detection (both using rectangles and masks), animations and sounds (sounds found online) were used.

# 2.) Password Manager:

- ➔ I used python along with tkinter to create this GUI application.
- ➔ This application also takes into account exceptions and exception handling.
- ➔ This can also be used for generating randomized passwords.

## How to Use:

- ➔ Install the required module(s) (tkinter and pyperclip3).
- ➔ Run the main.py file.
- ➔ To save/update a password, enter the appropriate information into the entry fields, you can either enter your own password or generate a random password by clicking the “Generate” button.
- ➔ Click the add button, confirm the details on being prompted.
- ➔ This will save/update this information locally on your computer and also copy the password to your clipboard automatically.
- ➔ You can also search your saved passwords for a particular website by typing in the website name and clicking the “Search” button.

# 3.) Quiz Application:

- ➔ I used python along with tkinter, along with the “Open Trivia Database API”, to create this GUI application.
- ➔ The API request header fields can be modified to choose a specific category and vary the number of questions.

## How to Use:

- ➔ Install the required module(s) (tkinter).
- ➔ Run the main.py file.
- ➔ Attempt the true/false questions using the appropriate buttons.

# 4.) Playlist Maker:

- ➔ I used python along with BeautifulSoup and Spotify API.
- ➔ According to a date entered by the user, the program uses Beautiful Soup to scrape the Billboard Hot-100 webpage for that date and creates a list of song titles.

➔ The program then logs into a user's account (credentials required) on Spotify using the spotipy module (which facilitates working with the Spotify API) and then searches for the songs it found on the Billboard Hot-100 webpage.
➔ It then creates a playlist of these songs and then adds it to the user's account.

### How to Use:

➔ Install the required module(s) (requests and spotipy).
➔ Create a .env file for client credentials.
➔ Run the main.py file.
➔ Enter a date in the mentioned format (YYYY-MM-DD).

## My Skills:

➔ Python, working with various modules and APIs.
➔ HTML, CSS, Bootstrap, Sass.
➔ JavaScript basics.
➔ Can work with C, C++ also.
➔ **Currently learning:** Flask.
➔ **Interests to pursue:** Web development, Data science, AI/ML/DL, Unreal engine (C++).

## NOTE:

➔ Besides these projects, I have created several other projects which can be found on my GitHub page (links can be found in the form submitted). You can have a look at them as well.
➔ There is also a personal portfolio website which I have been working on (currently front-end only).

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