# Alarmy GUI interface using Tkinter and Pygame in *Python*

* Project Statement:

Making an Alarm Clock which consists of different tasks/quizzes/games, which only on completion makes the alarm stop ringing.

* Description Of our ‘Alarmy’ GUI interface:

In this GUI interface we let users set their time for Alarm to ring, when the alarm starts ringing users get choice whether to *play a game*, or to answer some *basic mathematics questions* or to apply for a *quiz*. Further quiz contains 3 options i.e. to apply for a Science quiz, a General Knowledge quiz or an Odd One Out quiz.

Rules to make Alarm stop ringing:

1. On choosing Game to play, user needs to score a minimum of 5 points.
2. On choosing Mathematics, user needs to guess 5 correct answers out of many.
3. On choosing Quiz (any), user needs to correctly answer 3 out of 5 questions.

Failing to complete any of the above mentioned tasks, Alarm clock will not stop ringing. Again user will be provided with choices as to whether to *play a game*, to answer some *basic mathematics questions* or to apply for a *quiz*.

* Objective of this GUI interface:

Alarmy GUI interface is specially designed for those who sometimes again fall asleep after switching off the Alarm set by them. This GUI interface makes users do some task on waking up so that the brain becomes active and not sleep again. This GUI interface can be used by all the age group of people and also beneficial to all.

* Packages used:

**from tkinter import \***

for importing everything from tkinter library.

**from threading import \***

for importing everything from thread library

**from pygame import mixer**

In order to play music/audio files in pygame, pygame.mixer is used

**import datetime as dt**

Datetime module supplies classes to work with date and time.

**import tkinter**

Tkinter is the standard GUI library for Python.

**import time**

allows us to handle various operations regarding time

**import pygame**

open-source cross-platform library for the development of multimedia GUI interfacelications

**import random as r**

To generate random variables

**import math as m**

To use various math functions like square root or trigonometric identities

**import random**

To generate random variables

**from PIL import Image,ImageTk**

Contains support to create and modify Tkinter BitmapImage and PhotoImage objects from PIL images

Using ***pip command*** we can install all these packages.

**pip install python-tk**

**pip install pygame**

Code Execution Process:

* Install all the required modules.
* Download all the images and ringtone , and keep it in a file.
* (images and ringtone are uploaded in the zip file)
* Now run the file PSC\_INNOVATIVE\_ASSIGNMENT\_19BCE246\_19BCE268\_19BCE299.ipynb
* Group Details:

We Akshat Shah, Meet Vora and Somya Thacker worked as a team to complete this whole project. We enjoyed working on this project and further we wish to work together to expand our project and make it helpful to everyone. We divided our work such that all the members of the group are able to explore all the attributes and all the methods used in this project so that everyone has equal understanding of the project. Meet Vora, 19BCE299 enjoyed editing and linking all our code part and implemented GUI parts. Akshat Shah, 19BCE246 practiced coding of some quizzes and helped us in research part of how the clock should work and what all important things we need for an Alarm clock. Somya Thacker, 19BCE268 also practiced coding of some quizzes and helped in research work of the project. Combining the efforts of everyone in this group our project became successful.

We hope our teachers identify our work and grade excellent this project.

**LINK OF THE VIDEO:**

**THE VIDEO SHOWS THE EXECUTION OF PROGRAM.**

[https://drive.google.com/file/d/1zvF0SalzlkSF-Bs3XzJzN-u7mMDoIQIO/view?usp=sharing](GOOGLE)