Python i Pygame

Programiranje arkadnih igrica u Pythonu koristeći Pygame

Biblioteke i moduli

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- Biblioteke (Libraries) su programske datoteke koje sadrže funkcije i klase koji se koriste (pozivaju) u drugim programima

- Biblioteka može sadržavati jednu ili više datoteka modula (Module)

- Biblioteke i moduli se koriste zbog:
  - Lakšeg razumijevanja programa
  - Mogućnosti da više od jednog programera radi istovremeno na programu
  - Mogućnosti dijeljenja programa među programerima

Kreiranje modula

- Prvo kreiramo programsku datoteku my_functions.py i u njoj funkciju foo:

```
def foo():
    print("Foo!")
```

- Zatim kreiramo programsku datoteku test.py u kojoj ćemo koristiti funkciju foo:

```
# Ukljuci my_functions.py programsku datoteku
import my_functions

# Pozovi funkciju fo iz my_functions.py programske datoteke
my_functions.foo()
```

- Ako želimo pozvati funkciju foo bez navođenja imena datoteke:

```
# Iz my_functions.py ucitaj sve funkcije
from my_functions import *

# Pozovi funkciju fo iz my_functions.py programske datoteke
foo()
```

Kviz

- Slijedi link ispod:

  http://programarcadegames.com/quiz/quiz.php?file=libraries&lang=en

Kviz odgovori

- P1: What is a library?
    - A .pyc file.
    - A collection of functions and/or classes that can be imported into a project.
    - Any code that has not been written by a developer.
    - A store where you can buy code from other developers.

- P2: Why would a person create a library?
    - Libraries are something to be avoided by developers.
    - It makes the code run faster.
    - It provides an easy way for developers to share code between projects and other developers.
    - It makes the code smaller.

Kviz odgovori, nastavak

- P3: Why does the following code not work?

```
my_functions.py
def foo():
    print("foo!")

main.py
import my_functions
foo()
```

  - The program should read import foo
  - The program should read import my_functions.py
  - The program should read from foo import my_functions
  - The program should read my_functions.foo()

- P4: What is the proper code to import the math library into the local name space?
  - from math import *
  - import math into local
  - import math
  - from math import local
  - import local

Kviz odgovori, nastavak

- P5: What does the asterisk represent in the following line of code:

```
from my_functions import *
```

  - It represents the local namespace.
  - My God, it's full of stars!
  - Wildcard. Import every function in the my_functions module.