Tecnologias Emergentes em Jogos
Engenharia em Desenvolvimento de Jogos Digitais

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1. Assume that you want to develop a program to manage the users registered in a website. Each user has the following attributes: nickname, email, password, date of registration, and last login.

   - Define the class User with the relevant attributes and 2 constructors: one that initializes the attributes with a default value and another one that requires the nickname, email and password.

     Create also the Site class that allows you to define a name together with the list of registered users in the website.

   - Add a method to Site class that allows you to retrieve all the users with email from "gmail.com" domain.

     func UsersFromGmail() − > [User] { ... }

   - Given an array of Users write a map function that returns an array of strings consisting of the user's nicknames.

   - Add an extension to Date class that allows you to retrieve the year of a given date.

   - Using the extension defined in previous question, add a method to Site class that allows you to search the users registered in a given year.

     func SearchUsersPerYear(year : Int) -> [User] {...}

2. Add an extension to `String` type that returns a string with the vowels present in the given string. Example:

```
print("Hi team!".vowels()) // "iea"
```