Encapsulation Principle, Internet and the World Wide Web

By: Laams Innovation Lab

Lecture Contents

Encapsulation Principle

Browsers & Using the Chrome Browser

Using the Chrome Development Tools

Using HTML, CSS & JavaScript to Manipulate the Browser

Encapsulation Principle

Encapsulation builds on top of the **abstraction** principle by **bundling** the required **data** and **functions** in a **self-contained object** , **exposing** an **interface** to be used by other objects, and **restricting** access to certain **inside details**.

Encapsulation Principle

It helps with *software changes* by exposing a relevant **interface** to the user, while the user **do not care** about its implementation; hence, you can always **re-implement** and change **the inside details**, leading to *Black box thinking*.

Encapsulation forms *Abstraction Barrier*, which reduces complexity for the users, it also leads to *re-usability*, by making behaviors predictable, and prevents accidental changes by creating *procedures* for change.

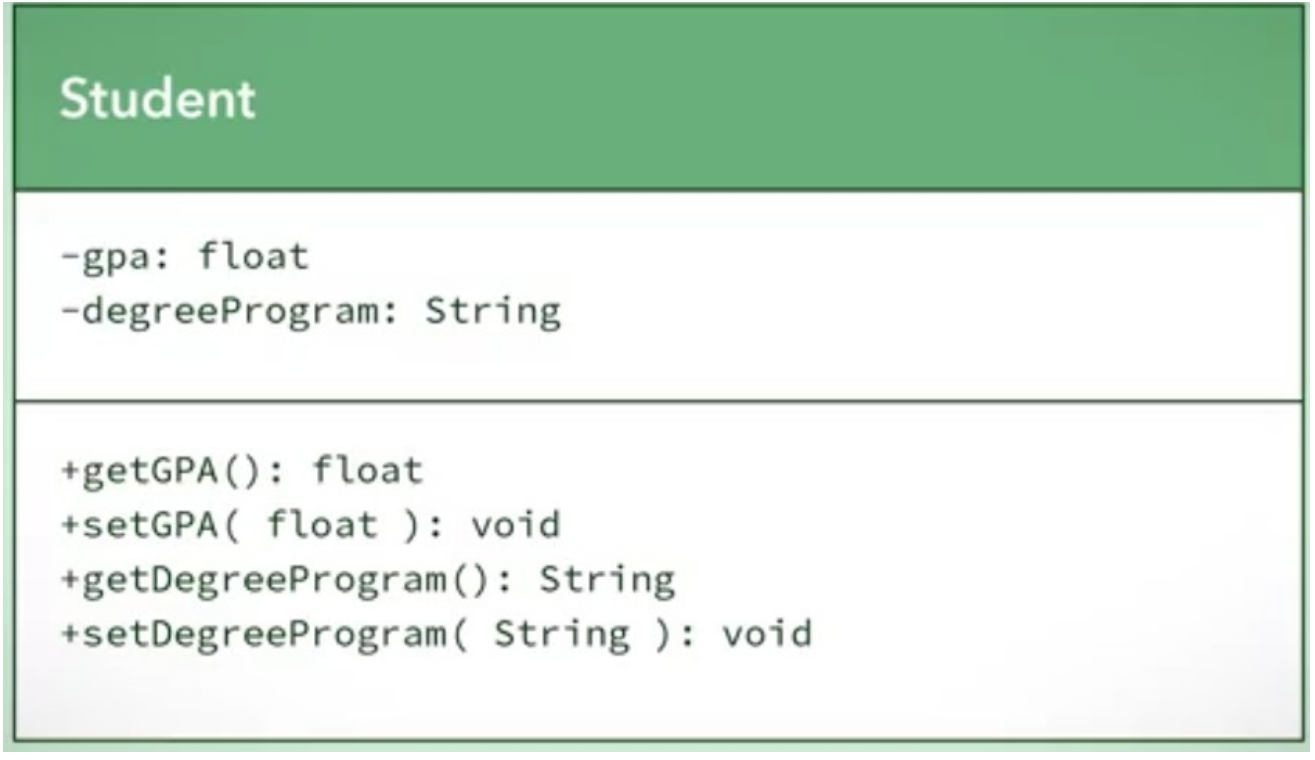
Getter Methods

Getter methods are used to **retrieve** **data** from an encapsulated class. Their name typically starts with the word get and ends with name of the attribute they are retrieving.

Setter Methods

Setter methods **change** **data**, their name starts with set followed by the name of the variable is wishes to set. They are usually used to set **private** variables values.

Encapsulation UML Class Diagram



What is the internet & who created it?

What is World Wide Web & who created it?

What is the World Wide Web Consortium (W3C) and its purpose?

What is URI, URL & URN, and how are they related to IP?

What is browser?

How does the Search Engines work?

Using Google Chrome

Installing Google Chrome (preinstalled on Chrome OS)

Google Account, Syncing & Google Chrome Profile

Homepage Startup and Bookmarks

Using the Omnibox (security, search types, useful google links)

Performing Google Search

Google Chrome start menu