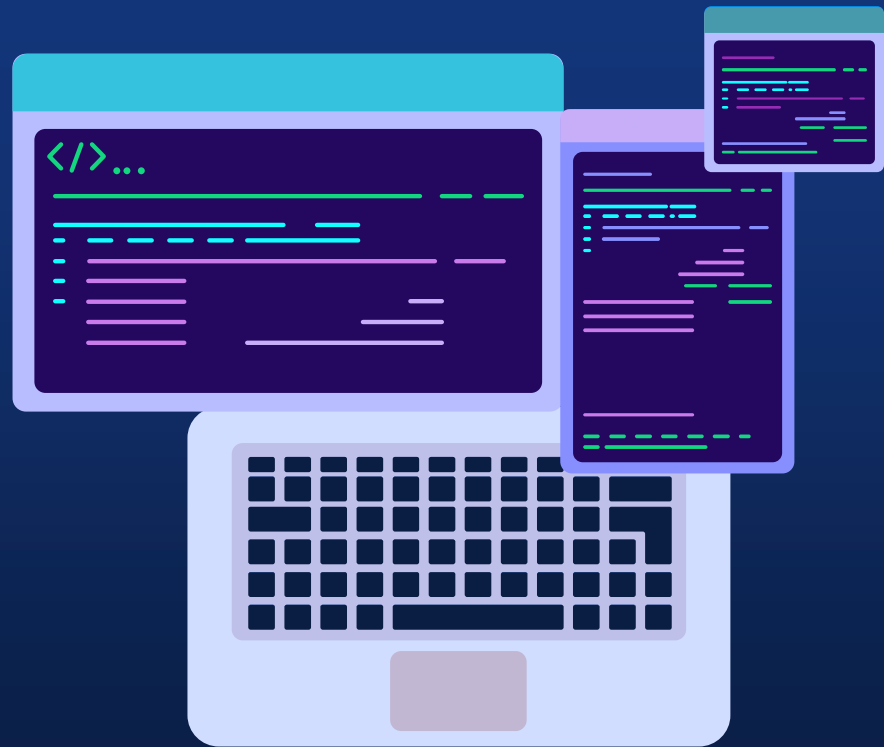


Software Design and Important concepts

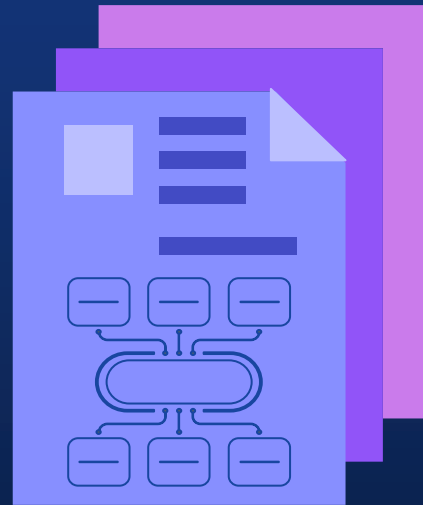


Mentor: Einar Rocha



01

Pillars of Object Oriented Programming (OOP)



The Goals of Software Design



To allow us to write software that is as helpful as possible.



To allow our software to continue to be as helpful as possible.



To design systems that can be created and maintained as easily as possible by their programmers



Agenda

Encapsulation



Public, protected, private, internal

Abstraction



Definition

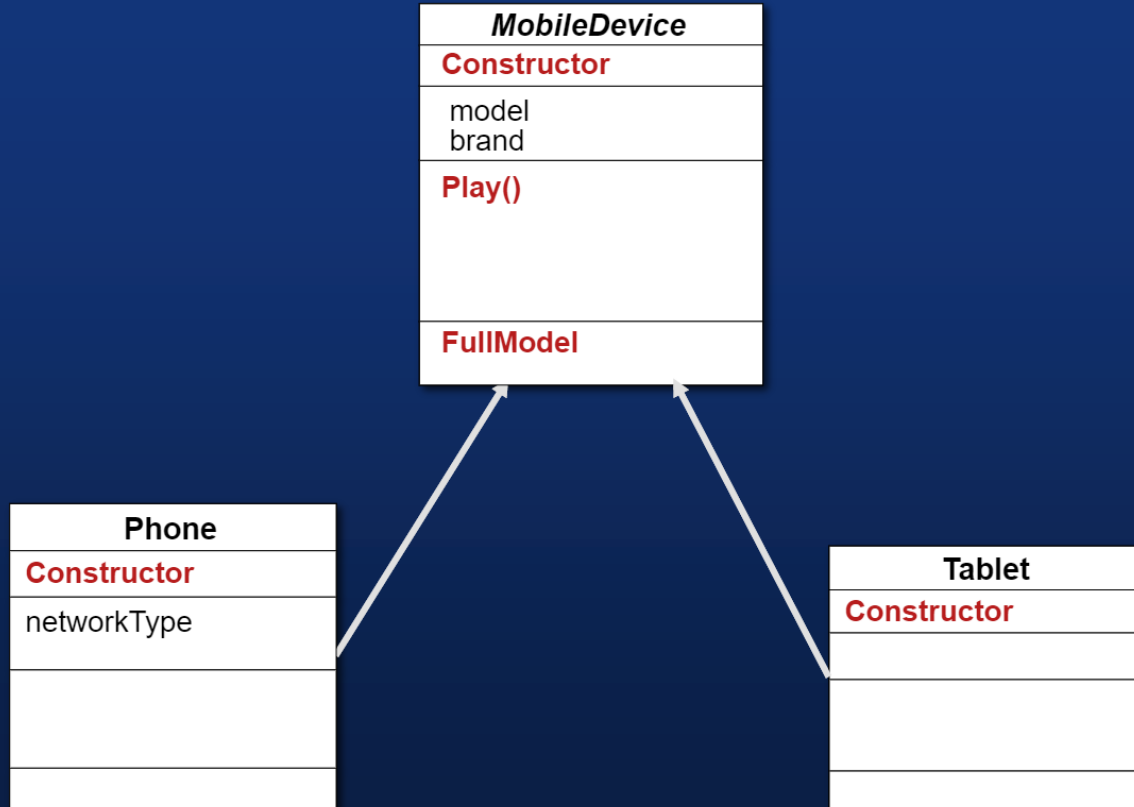


Encapsulation

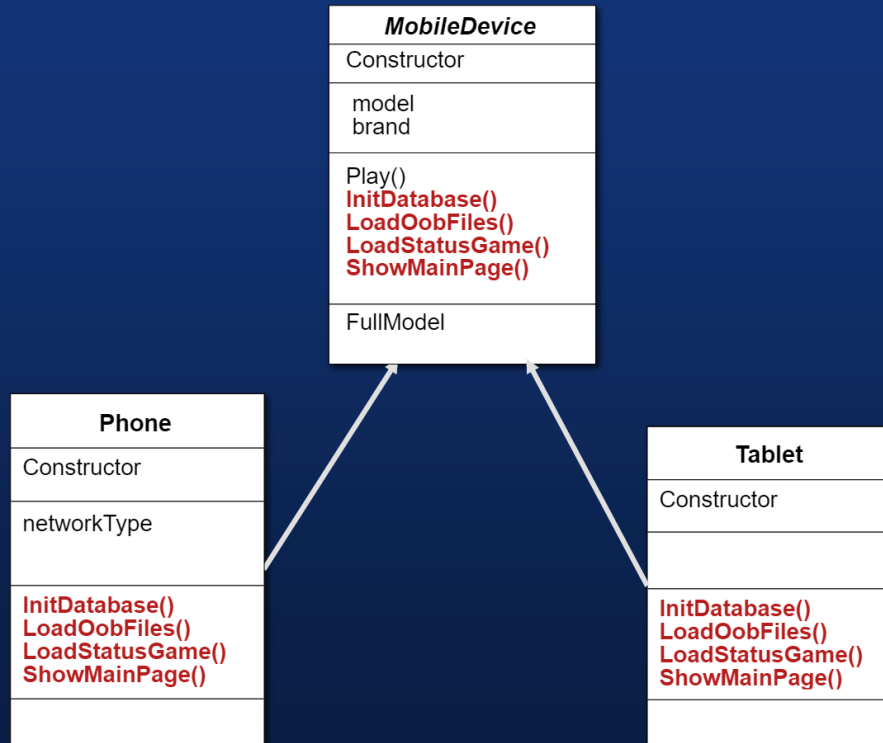
Phone
- brand
- ShowBrand()



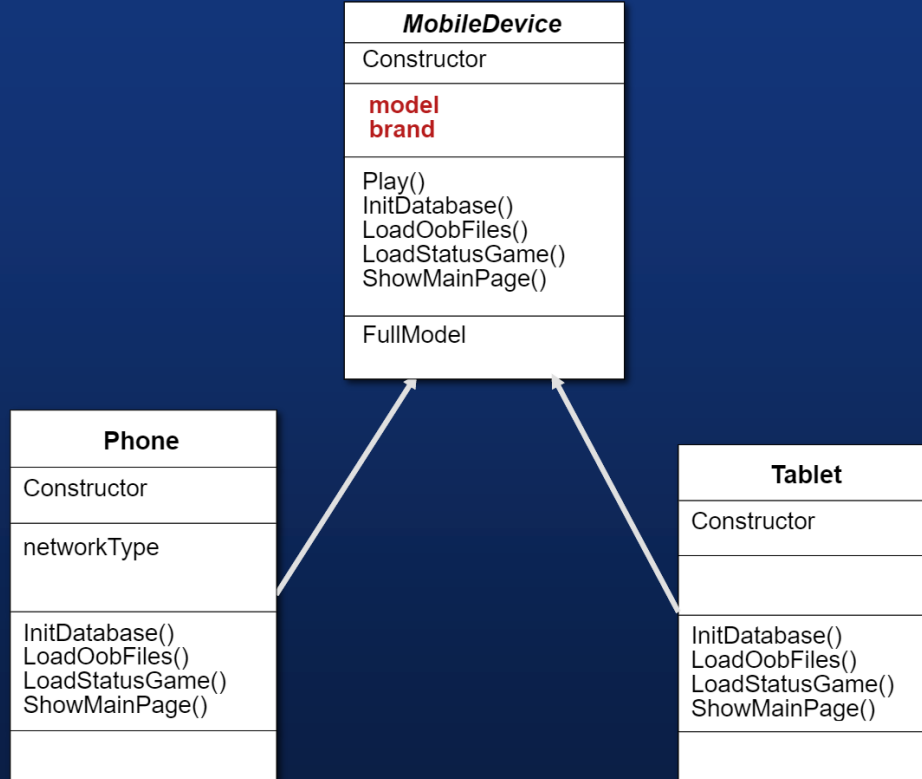
Public Access Modifier



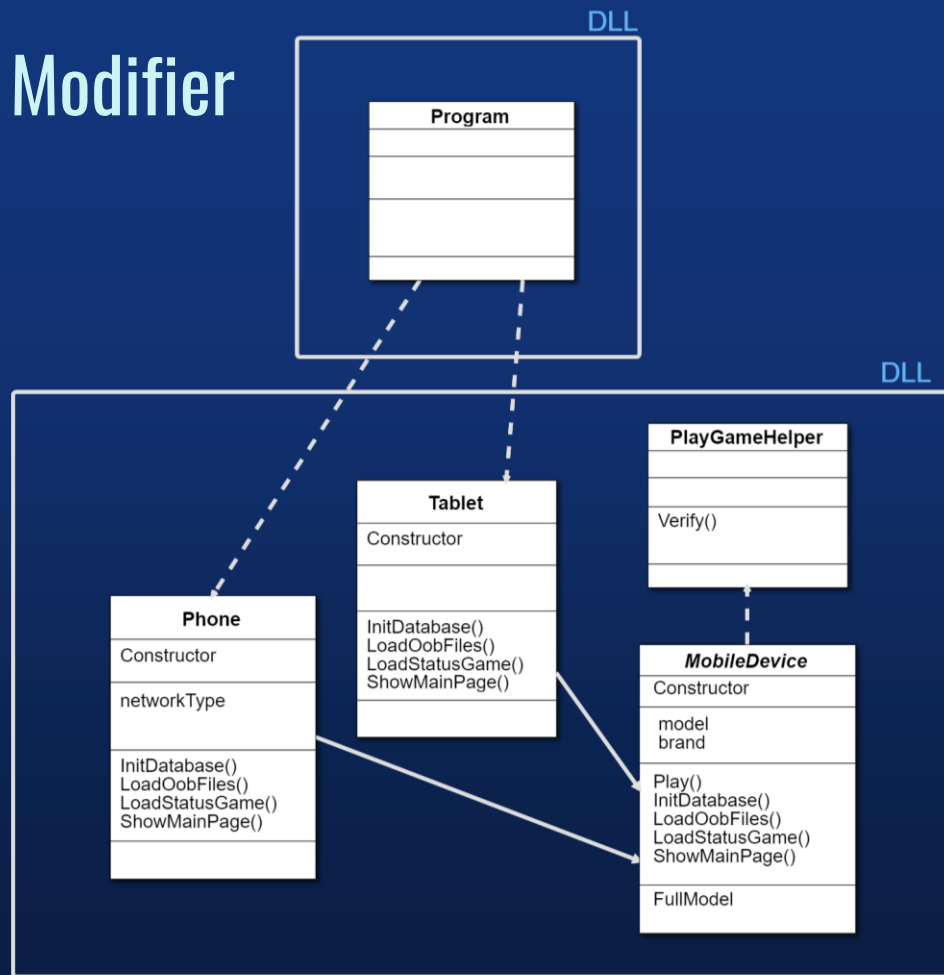
Protected Access Modifier



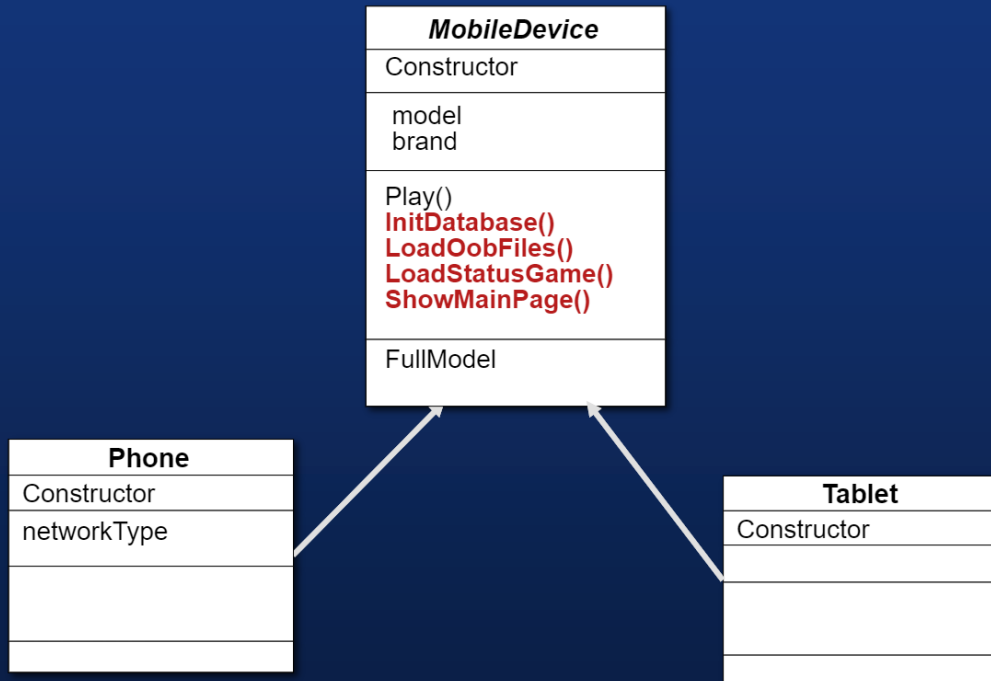
Private Access Modifier



Internal Access Modifier



Abstraction





Summary

Encapsulation

- **Public:** Any method, field, property, can be used from inside the class and from outside
- **Private:** The type or member can only be accessed via code in the same class
- **Protected:** The type or member can only be accessed through code in the class itself or in a class derived from that class.
- **Internal:** The type or member can be accessed through any code in the same assembly, but not from another assembly.

Abstraction

- Process of hiding irrelevant information to show only what is relevant to the end user





Home work

Encapsulation

- NO UI
- Class diagram
- Code
- Is not a “real” app
- Demonstrate that all the requirements are covered in a short video
- code + diagram + video in a Github repository





Outlook client

En general se desea cubrir la funcionalidad de un cliente de correos, enviar y recibir mensajes

Requerimientos:

- Un mensaje contiene: ip origen, from, to, subject CC body y date
- El cliente soporta folders, algunos por defecto como inbox y otros personalizados que se pueden crear o borrar
- Se puede mover los mensajes entre folders
- Se puede borrar mensajes
- Se puede crear reglas como por ejemplo redireccionar a una carpeta o reenviar el mensaje, borrar etc.
- Se puede configurar el cliente con un servidor SMTP con la respectiva información





Additional resources

<https://github.com/rochaeinar/SoftwareDesign-ImportantConcepts.git>

- Slides
- Books
- Course
- Sessions recording
- C# Code (Examples used in the slides)

