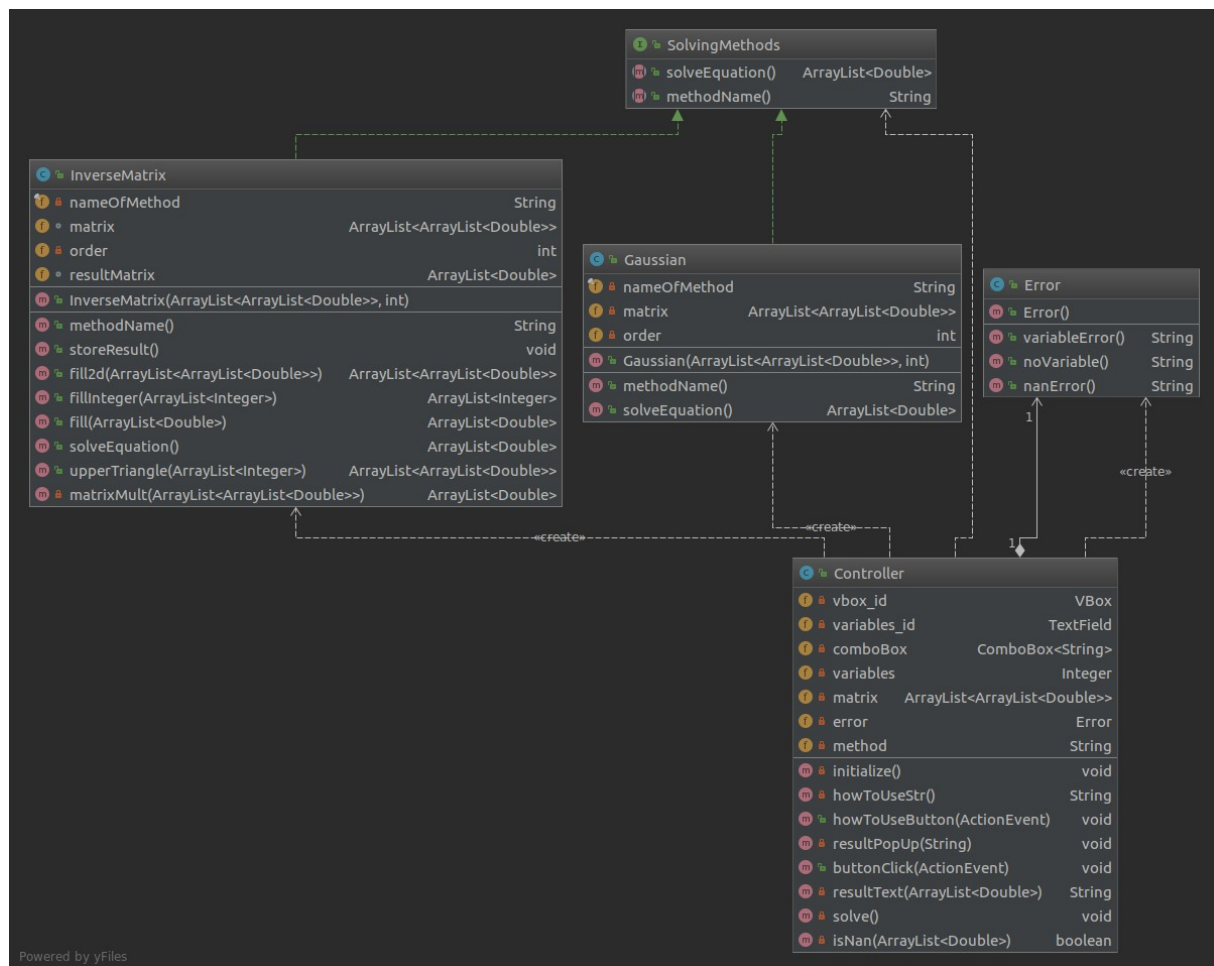


CSE443
Object Oriented Analysis and
Design
HW1 – Report

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Part 1



In this part, “Strategy Pattern” is used.

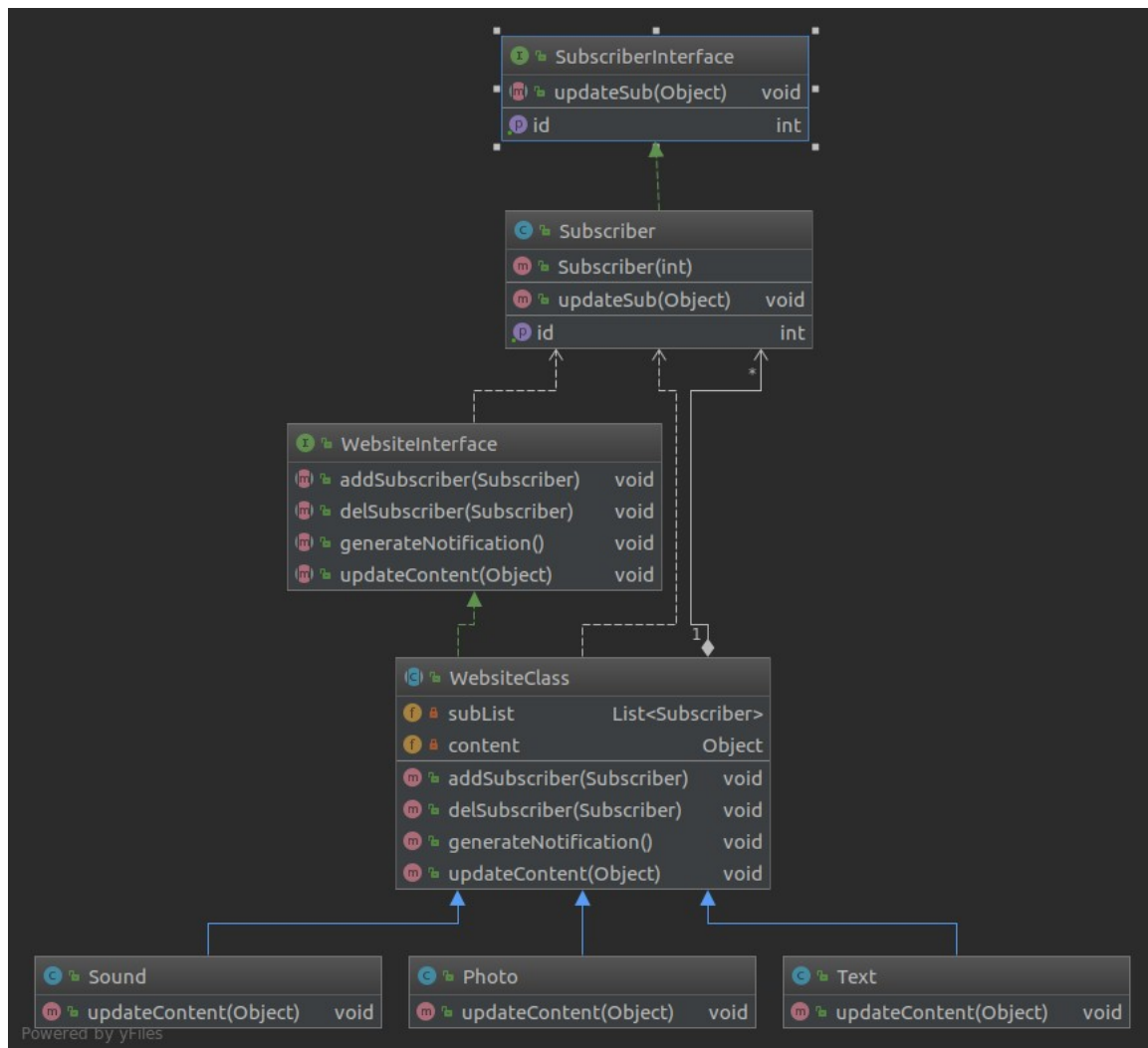
“Controller class connects UI and solver methods. Also creates an ArrayList of “SolvingMethods” interface inside “solve()” method to choose solver method dynamically.

“Gaussian” and “Inverse Matrix” classes implement “SolvingMethods” interface and override “solveEquation()” and “methodName()” methods of it. This allows us to keep their object in the same list and call desired method.

“Error” class is created to generate some unique error messages for each type of errors. There can be three errors in this program: 1) Variable numbers – Matrix incompatibility, 2) Absence of variable number and parameter and 3) Having no solution for given equations.

Part 2

In this part, “observer pattern” is used. An interface has the definition of all of the methods that will be used. WebsiteClass is an abstract class that implements addSubscriber, delSubscriber and generateNotification methods of WebsiteInterface; keeps a list of subscribers, keeps the



variables of contents and lets his children to implement “updateContent” method. Once a content is updated, generateNotification method is called and subscribers of the related content are notified.

Contents of the websites (such as called Photo, Text and Sound) extend WebsiteClass and implement “updateContent” method according to them.

SubscriberInterface is implemented by Subscriber class and each subscriber is generated with an ID. Their updateSub method is called whenever a content, which is related to them is posted.