Exercise #3

Group GOLF:

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Exercise 1:

a) MVC (Model View Controller) architecture consist of three classes forming all components on an application. These classes are Model, View and Controller.
In a layered architecture components of an application are divided into layers. They are arranged on top of each other. A component from a layer can use services only from the components from the layer below.
In MVC the three classes have no restrictions on with whom they can communicate with. Therefore, the three classes from MVC can't form a layered architecture.

b) UWE layers - MVC

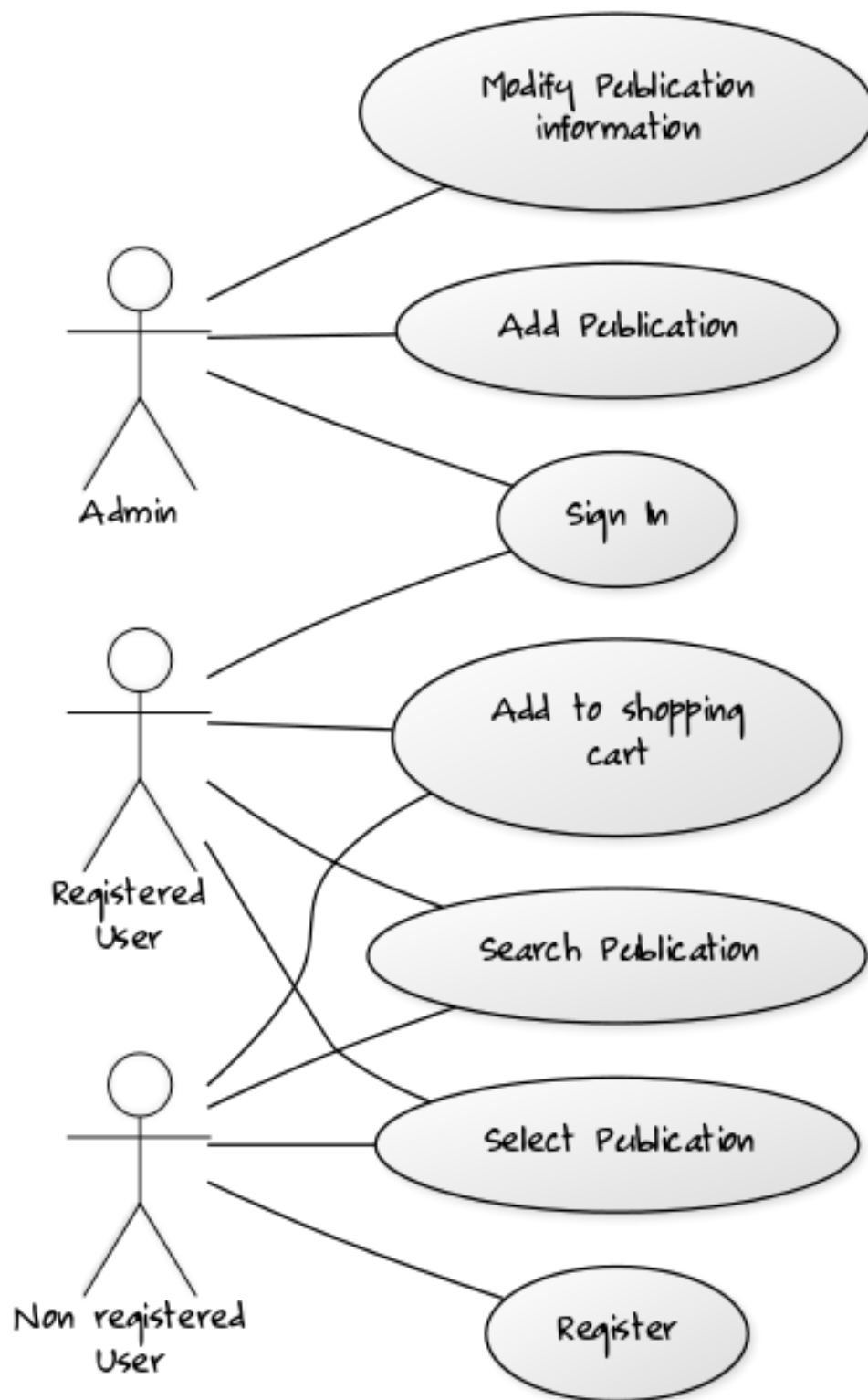- content – model

- hypertext – controller
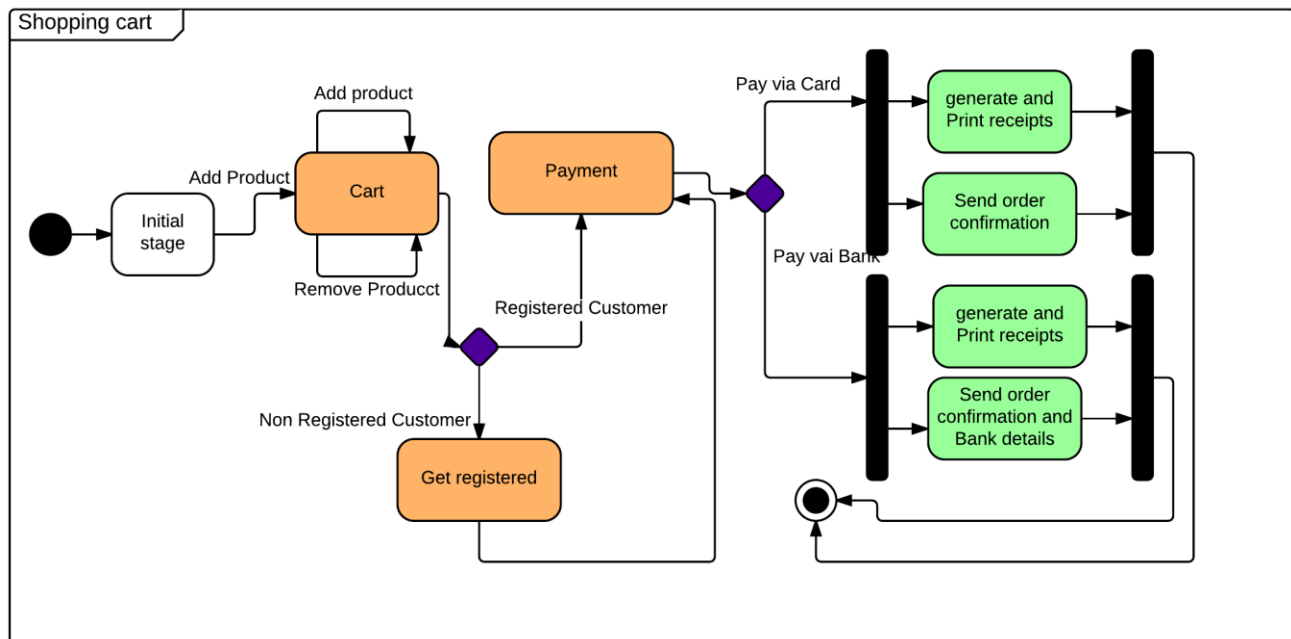
- presentation - view

c) High cohesion and low coupling are both building blocks of software architecture. High cohesion is observed when the elements inside a component are highly dependent. The functionality of the elements is closely related to each other. Low coupling is achieved when components are independent from each other. The components rely on each other to a low degree.

d) The observer design pattern is used in MVC. It decouples views from models. Models' values can change. Models' views should access these values. The views must ensure that they reflect on the models' state. The model notifies the views that depend on it when its state is changed. Every view has the opportunity to update itself.

Exercise 2:

2a:

2B:

Description:

From the initial stage any customer can add product to cart , after adding product to the card customer can add new products or can delete products from the cart. However , for the payment options , if the customer is already registered then the customer can pay directly. On the other hand, if the customer is not registered the customer have to get registered for getting all payment options. There will be two types of payment options, customers can pay via card or via bank transfer. Finally, the system will generate a receipt and send a confirmation to the customer and for a bank transfer payment system it will send the bank detail to customer for sending the money.