

Exercise 1: Component Diagram

1. The component **image.java** depends on the **ImageObserver** interface of the component **component.java**.– Draw the corresponding component diagram.
2. Consider an **online shopping subsystem (Online Store)** that contains three components related to online purchasing: **Search_Engine**, **Cart**, and **Authentication**.
 - The **Search_Engine** component allows product search by providing the interface **Product_Search**, and it uses the required interface **Inventory_Search**, which is provided by the **Inventory** component.
 - The **Cart** component provides the **Online_Purchase** interface and uses the **Order_Management** interface provided by the **Orders** component when placing an order.
 - The **User_Session** interface is provided by the **Authentication** component and exposed by the **Online Store** subsystem. It can also be used by the **Cart** component.

– Draw the corresponding component diagram.

Exercise 2: Deployment Diagram

A hardware architecture consists of a **server**, a **kiosk**, and a **console**.

The server uses a **RAID-mounted hard disk tower**.

The console communicates with the server through a **100b Ethernet connection**, and with the kiosk through an **RS232C link**.

The server characteristics are:

- Pentium Processor
- 4 GB RAM
- 17-inch monitor

– Draw the corresponding deployment diagram.