

Ada Programming Test 2 – Tasks - Retake

Create the following simulation. The printing should be done by a protected object. The 1 minute in the text is 0.1 second when programming.

For mark 2.

On a discount shopping day John decided to purchase items in the shopping mall. 3 shops are important for him: sport, shoes and electronics. After he arrives (arrival time 1 minute) John starts with the first shop, if it is not yet open then he tries after 1 minute the shoes. If it is open, enters, if not, after 1 minute tries the electronics, but here is willing to wait up to 3 minutes to enter. In a shop he is purchasing one item during 1 minute. The shops have random 0 or 1 minute opening time, and then they check at every minute if someone arrived and meet the customer. When John has finished, they are closing (terminating) as well.

For mark 3.

John will call his friends to shopping. Transform the John task into customer task type, which receives the name as discriminant. 15 static customers should be created. The shops now are meeting more customers, and at the end will print how many items were sold.

For mark 4:

The shops should be also task types. Altogether, create 2-2-2 dynamic shops in an array, opening at 2 minutes intervals. Now the customers are choosing randomly the index of the shops and they make 3 trials for 3 random shops. If they are not served immediately will chose another one, then after the third trial they would go home.

For mark 5:

The managers are closing their shops after 2 customers were served. Therefore, some clients will not be served (exception handling). The number of customers in the shopping mall served or not yet served must be monitored by manager protected object.