

CSE 300 Midterm 2

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I. QUESTION (10 POINTS)

Consider the following relations about the suppliers-parts-projects database. The significance of an shipment row is that the specified supplier supplies the specified part to the specified project in the specified quantity. Create the following tables.

Suppliers(sid:integer, sname:string, status:integer, city:string)

Parts(pid:integer, pname:string, color:string, weight:integer, city:string)

Projects(prjid:integer, prjname:string, city:string)

Shipment(sid:integer, pid:integer, prjid:integer, quantity:integer)

II. QUESTION (18 POINTS)

Create an html file and a servlet that asks the user to enter a supplier Id and checks whether the given person exists or not in the database. If the supplier exists, the program will delete that supplier from the database. If the supplier does not exist, the program will display a message. The names of the files will be question2.html for html, question2.java for the servlet.

III. QUESTION (18 POINTS)

Create an html file and a servlet that asks the user to enter a city c and displays all part numbers for parts supplied either by a supplier from city c or to a project in city c . The names of the files will be question3.html for html, question3.java for the servlet.

IV. QUESTION (18 POINTS)

Create an html file and a servlet that asks the user to enter a part number p and a supplier number s . Your servlet will display the total quantity of part p supplied by the supplier s . The names of the files will be question4.html for html, question4.java for the servlet.

V. QUESTION (18 POINTS)

A man that weighs W kg wants to lose weight. He goes on a diet, named Isik Diet, for N weeks. Every week he loses 10% of his weight. You will create an html file that asks the user the number of weeks on diet, N , and the current weight of the man, W . Your servlet will then display the final weight of the man at the end of the diet. The names of the files will be question5.html for html, question5.java for the servlet.

VI. QUESTION (18 POINTS)

Write an html file which asks the user three integers, say $start$, row , and col . Your servlet will display a " $row \times col$ " table of values with the left topmost value equal to $start$. Each value in the table must be equal to one more than the one above and the topmost value in a column is one more than the bottommost element in the previous column. In other words, the values in a column are consecutive and at the bottom of each column you wrap the top of the next column.

Example: If the parameters $start$, row , and col are 15, 6 and 4 respectively, then the output should be

```
15 21 27 33
16 22 28 34
17 23 29 35
18 24 30 36
19 25 31 37
20 26 32 38
```

The names of the files will be question6.html for html, question6.java for the servlet.