1. Create a cursor to retrieve all the employee’s SSNs and last names from the EMPLOYEE table
2. For sample Employee DB print out the salaries over 30000 for all personnel use exception handling
3. Write a PL/SQL program that uses an explicit cursor to display the item and the inventory information for each product. The cursor will also calculate the values for each inventory item (qty\_hd \* itemrate), and the total value of all inventory items for that product category.(Use following)

**Field name Data type**

Ship\_id Number -- This is the ID of a particular Ship

Date\_expected Date --The date at which the goods are expected to arrive

Qty\_expected Number --The quantity that is supposed to arrive

Description Varchar2 --The description of the items

Color Varchar2 --The color of the items

Qty\_hand Number –The quantity on hand for these items

Itemrate Number—Price of each item.

Sample data

Ship id Date expected QtyExpected Description Color QtyHand Rate

212 15-Nov-2001 25 3-SeasonTents forest 3 500

212 25-Nov-2001 50 3-SeasonTents Red 5 500

213 15-Mar-2003 75 Caps 10 250

1. Write a PL/SQL program that uses implicit cursor to display the data expected, quantity expected, item description, color and quantity on hand for any particular Ship ID number. Include exception handlers for the cases where no data is returned or where multiple records are returned.

**Field name Data type**

Ship\_id Number -- This is the ID of a particular Ship

Date\_expected Date --The date at which the goods are expected to arrive

Qty\_expected Number --The quantity that is supposed to arrive

Description Varchar2 --The description of the items

Color Varchar2 --The color of the items

Qty\_hand Number –The quantity on hand for these items

Itemrate Number—Price of each item.

Sample data

Ship id Date expected QtyExpected Description Color QtyHand Rate

212 15-Nov-2001 25 3-SeasonTents forest 3 500

212 25-Nov-2001 50 3-SeasonTents Red 5 500

213 15-Mar-2003 75 Caps 10 250

Format the output so that it is displayed as follows (assuming 212 is the Ship ID):

Shipment 212 is expected to Arrive on 15-Nov-01 And will contain 25 3-Season Tents, Color forest

1. Write a PL/SQL program that uses an explicit cursor to display the item and the inventory information for each product. The cursor will also calculate the values for each inventory item (qty\_hd \* itemrate), and the total value of all inventory items for that product category. Use following DB  **Field name Data type**

Ship\_id Number -- This is the ID of a particular Ship

Date\_expected Date --The date at which the goods are expected to arrive

Qty\_expected Number --The quantity that is supposed to arrive

Description Varchar2 --The description of the items

Color Varchar2 --The color of the items

Qty\_hand Number –The quantity on hand for these items

Itemrate Number—Price of each item.

Sample data

Ship id Date expected QtyExpected Description Color QtyHand Rate

212 15-Nov-2001 25 3-SeasonTents forest 3 500

212 25-Nov-2001 50 3-SeasonTents Red 5 500

213 15-Mar-2003 75 Caps 10 250

1. Create an explicit cursor that returns and then displays the itemdesc, itemrate, quantity on hand, and total price (qty\_hd \* itemrate) for each individual inventory item. Format each inventory item return values as follows:  
   Description:--This is the item description  
   Price: -- This is the itemrate  
   QOH:--This is the quantity on hand  
   Value:--This is qty\_hd multiplied by itemrate

Create a variable that sums up the total value of all inventory items and then display the total value after all rows are processed. Format the following output as:  
TOTAL VALUE: 45789.6 – This is just an example

Create a predefined exception handler for the case where no data is returned.

1. Write a function that calculates tax on a personnel member’s salary.

You should then be able to test your function by typing something like:

SELECT surname, first name, salary, tax(35000,500) from dual; (the two parameters being salary and bonus respectively).

Things you need to know and incorporate (read carefully and try to work out the formulae from the information given):

1. Pass two parameters for salary and bonus
2. ***Taxable salary*** is the salary + bonus – tax allowance
3. ***Tax allowance*** is a constant at £4335
4. There are two ***tax limits*** at £3999 (lower) and £28999 (upper)
5. Salary is tested against these tax limits
6. If salary is less than the lower tax limit then tax is calculated as 10% of taxable salary
7. If salary is between the two tax limits then tax is calculated as 22% of taxable salary
8. If salary is higher than the upper tax limit then tax is calculated as:

22% of the upper limit + 40% of the difference between the taxable salary and the upper limit.

1. Create a database table, which has the following fields:

Field name Data type

Student Name Varchar2

CourseID Number

Course description Varchar2

Course credits Number

Grade varchar2

Enter the following sample data.

Student Name CourseID Course description Course credits Grade

Bordoloi MIS 101 Intro to Info. Systems 3 A

Bock MIS 301 System Analysis 3 A

John MIS 451 Client/Server Systems 3 C

Bordoloi MIS 451 Client/Server Systems 3 A

John MIS 301 System Analysis 3 C

Bock MIS 451 Client/Server Systems 3 B

John MIS 101 Intro to Info. Systems 3 B

Calculate the total credits and the overall grade point for each student. Course Grade Points are awarded as follows:

Grade Grade Points

A 4

B 3

C 2

D 1

F 0

Format the output as follows:

Student Name: John

MIS 101 Intro to Info. Systems 3 B

MIS 301 System Analysis 3 C

MIS 451 Client/Server Systems 3 C

Total Credits: 9

Overall GPA:2.33 (i.e. (3+2+2)/3)

Hint: Round the overall GPA using the ROUND function.

Perform the map-reduce operation on the orders collection to group by the cust\_id, and calculate the sum of the price for each cust\_id

1. Write a function that calculates tax on a personnel member’s salary.

Perform the map-reduce operation on the orders collection to group by the cust\_id, and calculate the sum of the price for each cust\_id

{

\_id: ObjectId("50a8240b927d5d8b5891743c"),

cust\_id: "abc123",

ord\_date: new Date("Oct 04, 2012"),

status: 'A',

price: 25,

items: [ { sku: "mmm", qty: 5, price: 2.5 },

{ sku: "nnn", qty: 5, price: 2.5 } ]

}

1. Consider the following relations:

S (S#, SNAME, STATUS, CITY)

SP (S#, P, QTY)

P (P#, PNAME, COLOR, WEIGHT, CITY)

Give an expression in SQL for each of queries below:

(i) Get supplier names for supplier who supply at least one red part

(ii) Get supplier names for supplier who do not supply part P2.

1. Construct a view for the above relations which has the information about suppliers and the parts they supply. The view contains the S#, SNAME, P# , PNAME renamed as SNO, NAME, PNO, PNAME.

\

1. Consider the following relational schemas:

EMPLOYEE (EMPLOYEE\_NAME, STREET, CITY)

WORKS (EMPLOYEE\_NAME, COMPANYNAME, SALARY)

COMPANY (COMPANY\_NAME, CITY)

**(i)** Find the names of all employees who work for ‘First Bank Corporation’.

**(ii)** Find the names and company names of all employees sorted in ascending order ofcompany

name and descending order of employee names of that company.

**(iii)** Change the city of First Bank Corporation to ‘New Delhi’