CIS 229

Professor: Bob Desilets

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**Hands-On Assignments Part I**

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| **Assignment 3-1: Querying Data in a Block** |
| DECLARE  lv\_ship\_date bb\_basketstatus.dtstage%TYPE;  lv\_shipper\_txt bb\_basketstatus.shipper%TYPE;  lv\_ship\_num bb\_basketstatus.shippingnum%TYPE;  lv\_bask\_num bb\_basketstatus.idbasket%TYPE := 3;  BEGIN  SELECT dtstage, shipper, shippingnum  INTO lv\_ship\_date, lv\_shipper\_txt, lv\_ship\_num  FROM bb\_basketstatus  WHERE idbasket = lv\_bask\_num  AND idstage = 5;  DBMS\_OUTPUT.PUT\_LINE('Date Shipped: '||lv\_ship\_date);  DBMS\_OUTPUT.PUT\_LINE('Shipper: '||lv\_shipper\_txt);  DBMS\_OUTPUT.PUT\_LINE('Shipping #: '||lv\_ship\_num);  END; |
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| DECLARE  lv\_ship\_date bb\_basketstatus.dtstage%TYPE;  lv\_shipper\_txt bb\_basketstatus.shipper%TYPE;  lv\_ship\_num bb\_basketstatus.shippingnum%TYPE;  lv\_bask\_num bb\_basketstatus.idbasket%TYPE := 7;  BEGIN  SELECT dtstage, shipper, shippingnum  INTO lv\_ship\_date, lv\_shipper\_txt, lv\_ship\_num  FROM bb\_basketstatus  WHERE idbasket = lv\_bask\_num  AND idstage = 5;  DBMS\_OUTPUT.PUT\_LINE('Date Shipped: '||lv\_ship\_date);  DBMS\_OUTPUT.PUT\_LINE('Shipper: '||lv\_shipper\_txt);  DBMS\_OUTPUT.PUT\_LINE('Shipping #: '||lv\_ship\_num);  END; |
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| **Assignment 3-2: Using a Record Variable** |
| DECLARE  rec\_ship bb\_basketstatus%ROWTYPE;  lv\_bask\_num bb\_basketstatus.idbasket%TYPE := 3;  BEGIN  SELECT \*  INTO rec\_ship  FROM bb\_basketstatus  WHERE idbasket = lv\_bask\_num  AND idstage = 5;  DBMS\_OUTPUT.PUT\_LINE('Date Shipped: '||rec\_ship.dtstage);  DBMS\_OUTPUT.PUT\_LINE('Shipper: '||rec\_ship.shipper);  DBMS\_OUTPUT.PUT\_LINE('Shipping #: '||rec\_ship.shippingnum);  DBMS\_OUTPUT.PUT\_LINE('Notes: '||rec\_ship.notes);  END; |
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| **Assignment 3-3: Processing Database Data with IF Statements** |
| DECLARE  lv\_total\_num NUMBER(6,2);  lv\_rating\_txt VARCHAR2(4);  lv\_shop\_num bb\_basket.idshopper%TYPE := 21;  BEGIN  SELECT SUM(total)  INTO lv\_shop\_num  FROM bb\_basket  WHERE idShopper = lv\_shop\_num  AND orderplaced = 1  GROUP BY idshopper;  IF lv\_total\_num > 200 THEN  lv\_rating\_txt := 'High';  ELSIF lv\_total\_num > 100 THEN  lv\_rating\_txt := 'Midd';  ELSE  lv\_rating\_txt := 'Low';  END IF;  DBMS\_OUTPUT.PUT\_LINE('Shopper '||:g\_shopper||' is rated '||lv\_rating\_txt);  END; |
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| Test other shoppers who have a completed order: 22, 23, 24 |
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| **Assignment 3-4: Using Searched CASE Statements** |
| DECLARE  lv\_total CHAR(1);  lv\_total\_num NUMBER(6,2);  lv\_rating\_txt VARCHAR2(4);  lv\_shop\_num bb\_basket.idshopper%TYPE := 21;  BEGIN  SELECT SUM(total)  INTO lv\_shop\_num  FROM bb\_basket  WHERE idShopper = lv\_shop\_num  AND orderplaced = 1  GROUP BY idshopper;  IF lv\_total\_num > 200 THEN  lv\_total := 'A';  ELSIF lv\_total\_num > 100 THEN  lv\_total := 'B';  ELSE  lv\_total := 'C';  END IF;  CASE lv\_total  WHEN 'A' THEN lv\_rating\_txt := 'High';  WHEN 'B' THEN lv\_rating\_txt := 'Midd';  ELSE lv\_rating\_txt := 'Low';  END CASE;  DBMS\_OUTPUT.PUT\_LINE('Shopper '||:g\_shopper||' is rated '||lv\_rating\_txt);  END; |
| Test other shoppers who have a completed order: 22, 23, 24 |
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| **Assignment 3-5: Using a WHILE Loop** |
| DECLARE  lv\_totdisp\_num NUMBER(8,2) := 100;  lv\_itemprc\_num NUMBER(8,2) := 0;  lv\_totamt\_num NUMBER(8,2) := 0;  lv\_loopnum\_num NUMBER(8,2) := 0;  BEGIN  DBMS\_OUTPUT.PUT\_LINE('Total Starting Amount: ' || lv\_totdisp\_num);  SELECT price  INTO lv\_itemprc\_num  FROM BB\_PRODUCT  WHERE IDPRODUCT = 4;  DBMS\_OUTPUT.PUT\_LINE('Price: ' || lv\_itemprc\_num);  WHILE lv\_totdisp\_num >= lv\_totamt\_num LOOP  lv\_loopnum\_num := lv\_loopnum\_num + 1;  lv\_totamt\_num := lv\_itemprc\_num \* lv\_loopnum\_num;  END LOOP;  lv\_loopnum\_num := lv\_loopnum\_num -1;  DBMS\_OUTPUT.PUT\_LINE('Number of Items Purchased that can be purchased: ' ||lv\_loopnum\_num );  DBMS\_OUTPUT.PUT\_LINE('Total Amount: '|| lv\_loopnum\_num \* lv\_itemprc\_num);  END; |
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| Test with an amount and a product of your choice |
| DECLARE  lv\_totdisp\_num NUMBER(8,2) := 200;  lv\_itemprc\_num NUMBER(8,2) := 0;  lv\_totamt\_num NUMBER(8,2) := 0;  lv\_loopnum\_num NUMBER(8,2) := 0;  BEGIN  DBMS\_OUTPUT.PUT\_LINE('Total Starting Amount: ' || lv\_totdisp\_num);  SELECT price  INTO lv\_itemprc\_num  FROM BB\_PRODUCT  WHERE IDPRODUCT = 2;  DBMS\_OUTPUT.PUT\_LINE('Price: ' || lv\_itemprc\_num);  WHILE lv\_totdisp\_num >= lv\_totamt\_num LOOP  lv\_loopnum\_num := lv\_loopnum\_num + 1;  lv\_totamt\_num := lv\_itemprc\_num \* lv\_loopnum\_num;  END LOOP;  lv\_loopnum\_num := lv\_loopnum\_num -1;  DBMS\_OUTPUT.PUT\_LINE('Number of Items Purchased that can be purchased: ' ||lv\_loopnum\_num );  DBMS\_OUTPUT.PUT\_LINE('Total Amount: '|| lv\_loopnum\_num \* lv\_itemprc\_num);  END; |
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| **Assignment 3-6: Working with IF Statements** |
| DECLARE  lv\_quantity NUMBER(6);  lv\_cost NUMBER(6,2);  BEGIN  SELECT SUM (QUANTITY)  INTO lv\_quantity  FROM BB\_BASKET  WHERE idbasket=5;    IF lv\_quantity <= 3 THEN lv\_cost := 5.00;  ELSIF lv\_quantity <= 6 THEN lv\_cost := 7.50;  ELSIF lv\_quantity <= 10 THEN lv\_cost := 10.00;  ELSE lv\_cost := 12.00;  END IF;    DBMS\_OUTPUT.PUT\_LINE('The customer shipping is: ' ||'$'|| lv\_cost);  END; |
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| DECLARE  lv\_quantity NUMBER(6);  lv\_cost NUMBER(6,2);  BEGIN  SELECT SUM (QUANTITY)  INTO lv\_quantity  FROM BB\_BASKET  WHERE idbasket=12;    IF lv\_quantity <= 3 THEN lv\_cost := 5.00;  ELSIF lv\_quantity <= 6 THEN lv\_cost := 7.50;  ELSIF lv\_quantity <= 10 THEN lv\_cost := 10.00;  ELSE lv\_cost := 12.00;  END IF;    DBMS\_OUTPUT.PUT\_LINE('The customer shipping is: ' ||'$'|| lv\_cost);  END; |
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| **Assignment 3-7: Using Scalar Variables for Data Retrieval** |
| DECLARE  lv\_idbasket bb\_basket.idbasket%TYPE := 12;  lv\_subtotal bb\_basket.subtotal%TYPE;  lv\_shipping bb\_basket.shipping%TYPE;  lv\_tax bb\_basket.tax%TYPE;  lv\_total bb\_basket.total%TYPE;  BEGIN  SELECT idbasket, subtotal, shipping, tax, total  INTO lv\_idbasket, lv\_subtotal, lv\_shipping, lv\_tax, lv\_total  FROM bb\_basket  WHERE idbasket = lv\_idbasket;  DBMS\_OUTPUT.PUT\_LINE('Basket ID#: '||lv\_idbasket);  DBMS\_OUTPUT.PUT\_LINE('Subtotal: '||lv\_subtotal);  DBMS\_OUTPUT.PUT\_LINE('Shipping #: '||lv\_shipping);  DBMS\_OUTPUT.PUT\_LINE('Shipping tax: '||lv\_tax);  DBMS\_OUTPUT.PUT\_LINE('Total #: '||lv\_total);  END; |
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| **Assignment 3-8: Using a Record Variable for Data Retrieval** |
| DECLARE  rec\_ship bb\_basket%ROWTYPE;  lv\_bask\_num bb\_basket.idbasket%TYPE := 12;  BEGIN  SELECT \*  INTO rec\_ship  FROM bb\_basket  WHERE idbasket = lv\_bask\_num;    DBMS\_OUTPUT.PUT\_LINE('Basket ID#: '||rec\_ship.idbasket);  DBMS\_OUTPUT.PUT\_LINE('Subtotal: '||rec\_ship.subtotal || '$');  DBMS\_OUTPUT.PUT\_LINE('Shipping #: '||rec\_ship.shipping);  DBMS\_OUTPUT.PUT\_LINE('Shipping tax: '||rec\_ship.tax || '$');  DBMS\_OUTPUT.PUT\_LINE('Total: '||rec\_ship.total || '$');  END; |
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