Exercise #8

- 1) Create an Associative array of character datatype and index it by number and perform the below operations.
 - Insert 10 values into this array
 - Delete 3rd element from the array
 - Delete 7th element from the array
 - Display the data from the array
- 2) Create a Nested Table array of character datatype and perform the below operations.
 - Insert 10 values into this array
 - Delete 3rd element from the array
 - Delete 7th element from the array
 - Display the data from the array
- 3) Create a VARRAY array of character datatype which holds 10 values and perform the below operations.
 - Insert 10 values into this array
 - Display the data from the array

Answers

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1)
DECLARE
 TYPE CUSTOMER_TYPE IS TABLE OF VARCHAR2(100) INDEX BY BINARY_INTEGER;
 CUSTOMER_TABLE CUSTOMER_TYPE;
 V_IDX NUMBER;
BEGIN
  CUSTOMER_TABLE(1) := 'AB';
  CUSTOMER_TABLE(2) := 'CD';
  CUSTOMER_TABLE(3) := 'DE';
  CUSTOMER_TABLE(4) := 'FE';
  CUSTOMER_TABLE(5) := 'GH';
  CUSTOMER_TABLE(6) := 'IG';
  CUSTOMER_TABLE(7) := 'KE';
  CUSTOMER_TABLE(8) := 'LM';
  CUSTOMER_TABLE(9) := 'NO';
  CUSTOMER_TABLE(10) := 'PQ';
 CUSTOMER_TABLE.DELETE(3);
 CUSTOMER_TABLE.DELETE(7);
  V_IDX := CUSTOMER_TABLE.FIRST;
 WHILE V_IDX IS NOT NULL LOOP
  DBMS_OUTPUT.PUT_LINE('Name ' || CUSTOMER_TABLE(V_IDX));
  V_IDX := CUSTOMER_TABLE.NEXT(V_IDX);
 END LOOP;
END;
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2)
DECLARE
 TYPE CUSTOMER_TYPE IS TABLE OF VARCHAR2(100);
 CUSTOMER_TABLE CUSTOMER_TYPE := CUSTOMER_TYPE();
 V IDX NUMBER;
BEGIN
  CUSTOMER_TABLE.EXTEND (10);
  CUSTOMER_TABLE(1) := 'AB';
  CUSTOMER_TABLE(2) := 'CD';
  CUSTOMER_TABLE(3) := 'DE';
  CUSTOMER_TABLE(4) := 'FE';
  CUSTOMER_TABLE(5) := 'GH';
  CUSTOMER_TABLE(6) := 'IG';
  CUSTOMER_TABLE(7) := 'KE';
  CUSTOMER_TABLE(8) := 'LM';
  CUSTOMER_TABLE(9) := 'NO';
  CUSTOMER_TABLE(10) := 'PQ';
 CUSTOMER_TABLE.DELETE(3);
 CUSTOMER_TABLE.DELETE(7);
 V_IDX := CUSTOMER TABLE.FIRST;
 WHILE V IDX IS NOT NULL LOOP
  DBMS_OUTPUT.PUT_LINE('Name ' || CUSTOMER_TABLE(V_IDX));
  V_IDX := CUSTOMER_TABLE.NEXT(V_IDX);
 END LOOP;
END;
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3)
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DECLARE
 TYPE CUSTOMER_TYPE IS VARRAY(10) OF VARCHAR2(100);
 CUSTOMER TABLE CUSTOMER TYPE := CUSTOMER TYPE();
 V_IDX NUMBER;
BEGIN
  CUSTOMER_TABLE.EXTEND (10);
  CUSTOMER_TABLE(1) := 'AB';
  CUSTOMER_TABLE(2) := 'CD';
  CUSTOMER_TABLE(3) := 'DE';
  CUSTOMER_TABLE(4) := 'FE';
  CUSTOMER_TABLE(5) := 'GH';
  CUSTOMER_TABLE(6) := 'IG';
  CUSTOMER_TABLE(7) := 'KE';
  CUSTOMER_TABLE(8) := 'LM';
  CUSTOMER_TABLE(9) := 'NO';
  CUSTOMER_TABLE(10) := 'PQ';
 V_IDX := CUSTOMER_TABLE.FIRST;
 WHILE V_IDX IS NOT NULL LOOP
  DBMS_OUTPUT.PUT_LINE('Name ' || CUSTOMER_TABLE(V_IDX));
  V_IDX := CUSTOMER_TABLE.NEXT(V_IDX);
 END LOOP;
END;
```