**FINOLEX ACADEMY OF MANAGEMENT AND TECHNOLOGY, RATNAGIRI**

**DEPARTMENT OF MCA**

**PRACTICAL NO .01: DATA PARTITIONING**

QUE 1.

1. Create book table (book\_id(pk),title,author,price,book\_rating) with range

partition on rating with rating 1,2 and 3 for three different partitions. Insert at

least 10 records in the table.

**QUERY-**

1)

CREATE TABLE BOOK31(

book\_id number(10) primary key,

book\_title varchar(30),

author varchar(30),

price number(10),

book\_rating number(5)

)

partition by range(book\_rating)

(

partition B1 values less than(2),

partition B2 values less than(3),

partition B3 values less than(4)

);

2)

INSERT INTO BOOK31 VALUES(1001,'RICH DAD POOR DAD','ROBERT T.KIYOSAKI',400,1);

INSERT INTO BOOK31 VALUES(1002,'MONEY:MASTER THE GAME','TONY ROBBINS',350,3);

INSERT INTO BOOK31 VALUES(1003,'THE BAREFOOT INVESTOR','SCOTT PAPE',500,2);

INSERT INTO BOOK31 VALUES(1004,'THE ONE-PAGE FINANCIAL PLAN','CARL RICHARDS',1000,3);

INSERT INTO BOOK31 VALUES(1005,'THE INTELLIGENT INVESTOR','BENJAMIN GRAHAM',800,2);

INSERT INTO BOOK31 VALUES(1006,'BOOK THAT BEATS THE MARKET','JOELGREENBLATT',1200,1);

INSERT INTO BOOK31 VALUES(1007,'THE MILLIONAIRE FASTLANE','MJ DEMARCO',600,3);

SINSERT INTO BOOK31 VALUES(1008,'THINK AND GROW RICH','NAPOLEON HILL',700,2);

INSERT INTO BOOK31 VALUES(1009,'THE AUTOMATIC MILLIONAIRE','DAVID BACH',950,1);

INSERT INTO BOOK31 VALUES(1010,'SECRETS OF THE MILLIONAIRE','T. HARV EKER',1200,3);

3)

SELECT \*FROM BOOK31;

**OUTPUT-**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **BOOK\_ID** | **BOOK\_TITLE** | **AUTHOR** | **PRICE** | **BOOK\_RATING** |
| 1001 | RICH DAD POOR DAD | ROBERT T. KIYOSAKI | 400 | 1 |
| 1009 | THE AUTOMATIC MILLIONAIRE | DAVID BACH | 950 | 1 |
| 1006 | BOOK THAT BEATS THE MARKET | JOELGREENBLATT | 1200 | 1 |
| 1003 | THE BAREFOOT INVESTOR | SCOTT PAPE | 500 | 2 |
| 1005 | THE INTELLIGENT INVESTOR | BENJAMIN GRAHAM | 800 | 2 |
| 1008 | THINK AND GROW RICH | NAPOLEON HILL | 700 | 2 |
| 1002 | MONEY:MASTER THE GAME | TONY ROBBINS | 350 | 3 |
| 1004 | THE ONE-PAGE FINANCIAL PLAN | CARL RICHARDS | 1000 | 3 |
| 1007 | THE MILLIONAIRE FASTLANE | MJ DEMARCO | 600 | 3 |
| 1010 | SECRETS OF THE MILLIONAIRE | T. HARV EKER | 1200 | 3 |

(B) Display all the books with the rating 3 and price in the range 200 and 1000.

**QUERY-**

SELECT \*FROM BOOK31 WHERE book\_rating=3 AND price BETWEEN 200 AND 1000;

**OUTPUT-**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **BOOK\_ID** | **BOOK\_TITLE** | **AUTHOR** | **PRICE** | **BOOK\_RATING** |
| 1002 | MONEY:MASTER THE GAME | TONY ROBBINS | 350 | 3 |
| 1004 | THE ONE-PAGE FINANCIAL PLAN | CARL RICHARDS | 1000 | 3 |
| 1007 | THE MILLIONAIRE FASTLANE | MJ DEMARCO | 600 | 3 |

QUE 2.

1. Create 3 partition in table cabinet using Range partition on cid Column of cabinet(cid,mem\_name,address,state\_rep,phone\_number,sal)P1 cid &lt; 101;P2 &lt; cid &lt;501; P3 cid &lt;1001. Insert at least 10 records in the table.

**QUERY-**

1)

CREATE TABLE cabinet31(

cid number(24),

mem\_name varchar(20),

address varchar(30),

state\_rep varchar(25),

phone\_number number(15),

sal number(10)

)

partition by range(cid)

(

partition p1 values less than(101),

partition p2 values less than(501),

partition p3 values less than(1001)

);

2)

INSERT INTO cabinet31 VALUES (26,'VAISHNAVI', 'satara', 'maharashtra', 9856235412, 65000 );

INSERT INTO cabinet31 VALUES (78,'ADITI', 'chiplun', 'maharashtra', 9152365498, 55000 );

INSERT INTO cabinet31 VALUES (104,'AISHWARYA', 'dapoli', 'maharashtra', 9252365498, 50000 );

INSERT INTO cabinet31 VALUES (205,'SAKSHI', 'kolhapur', 'maharashtra', 9563256498, 52000 );

INSERT INTO cabinet31 VALUES (345,'SHRAWANI', 'satara', 'maharashtra', 9656412321, 40000 );

INSERT INTO cabinet31 VALUES (444,'PRADNYA', 'sangali', 'maharashtra', 9767589654, 44000 );

INSERT INTO cabinet31 VALUES (987,'ASHWINI', 'kankavali', 'maharashtra', 9563255621, 85000 );

INSERT INTO cabinet31 VALUES (566,'PRAJAKTA', 'aajara', 'maharashtra', 9865412359, 20000 );

INSERT INTO cabinet31 VALUES (700,'SHWETA', 'sindhudurg', 'maharashtra', 9988774562, 30000 );

INSERT INTO cabinet31 VALUES (990,'SHRADDHA', 'pune', 'maharashtra', 9865412356, 90000 );

3)

SELECT \*FROM cabinet31;

**OUTPUT**-

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **MEM\_NAME** | **ADDRESS** | **STATE\_REP** | **PHONE\_NUMBER** | **SAL** |
| 26 | VAISHNAVI | satara | maharashtra | 9856235412 | 65000 |
| 78 | ADITI | chiplun | maharashtra | 9152365498 | 55000 |
| 104 | AISHWARYA | dapoli | maharashtra | 9252365498 | 50000 |
| 205 | SAKSHI | kolhapur | maharashtra | 9563256498 | 52000 |
| 345 | SHRAWANI | satara | maharashtra | 9656412321 | 40000 |
| 444 | PRADNYA | sangali | maharashtra | 9767589654 | 44000 |
| 987 | ASHWINI | kankavali | maharashtra | 9563255621 | 85000 |
| 566 | PRAJAKTA | aajara | maharashtra | 9865412359 | 20000 |
| 700 | SHWETA | sindhudurg | maharashtra | 9988774562 | 30000 |
| 990 | SHRADDHA | pune | maharashtra | 9865412356 | 90000 |

1. Display the contents of third partition.

**QUERY-**

SELECT \* FROM cabinet31 partition(p3);

**OUTPUT-**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **MEM\_NAME** | **ADDRESS** | **STATE\_REP** | **PHONE\_NUMBER** | **SAL** |
| 987 | ASHWINI | kankavali | maharashtra | 9563255621 | 85000 |
| 566 | PRAJAKTA | aajara | maharashtra | 9865412359 | 20000 |
| 700 | SHWETA | sindhudurg | maharashtra | 9988774562 | 30000 |
| 990 | SHRADDHA | pune | maharashtra | 9865412356 | 90000 |

QUE 3.

(A) Create table Employee with attributes empid,name,age,salary and joining date by

using hash partition based on employee salary with minimum 3 partitions. Insert

at least 10 records in the table.

**QUERY-**

1)

create table employee31(

empid number(10),

emp\_name varchar(20),

age number(4),

salary varchar(20),

join\_date Date

)

partition by hash(salary)

(

partition p1,

partition p2,

partition p3

);

2)

INSERT INTO employee31 VALUES(101,'VAISHNAVI',04 ,15000,'02-Jan-2002');

INSERT INTO employee31 VALUES(102,'RUHI', 15, 35000,'05-March-2009' );

INSERT INTO employee31 VALUES(103,'ADITI',45, 65000, '09-Oct-2015' );

INSERT INTO employee31 VALUES(104,'AISHWARYA', 18, 15000, '12-Feb-2003' );

INSERT INTO employee31 VALUES(105,'SAYALI',20 , 75000, '01-March-2001' );

INSERT INTO employee31 VALUES(106,'SAKSHI', 18, 85000,'06-Dec-1999' );

INSERT INTO employee31 VALUES(107,'SANIKA',36,95000, '09-Nov-2000');

INSERT INTO employee31 VALUES(108,'PRATIKSHA',12 , 45000,'14-March-1996' );

INSERT INTO employee31 VALUES(109,'SHRUTI',44 ,25000, '23-Oct-2001' );

INSERT INTO employee31 VALUES(110,'NIKITA',03 ,55000, '09-Feb-2015' );

3)

SELECT \*FROM employee31;

**OUTPUT**-

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EMPID** | **EMP\_NAME** | **AGE** | **SALARY** | **JOIN\_DATE** |
| 103 | ADITI | 45 | 65000 | 09-OCT-15 |
| 106 | SAKSHI | 18 | 85000 | 06-DEC-99 |
| 107 | SANIKA | 36 | 95000 | 09-NOV-00 |
| 108 | PRATIKSHA | 12 | 45000 | 14-MAR-96 |
| 109 | SHRUTI | 44 | 25000 | 23-OCT-01 |
| 110 | NIKITA | 3 | 55000 | 09-FEB-15 |
| 101 | VAISHNAVI | 4 | 15000 | 02-JAN-02 |
| 102 | RUHI | 15 | 35000 | 05-MAR-09 |
| 104 | AISHWARYA | 18 | 15000 | 12-FEB-03 |
| 105 | SAYALI | 20 | 75000 | 01-MAR-01 |

(B) Display the information of the employee in the third partition.

**QUERY-**

SELECT \*FROM employee31 PARTITION(p3);

**OUTPUT**-

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EMPID** | **EMP\_NAME** | **AGE** | **SALARY** | **JOIN\_DATE** |
| 101 | VAISHNAVI | 4 | 15000 | 02-JAN-02 |
| 102 | RUHI | 15 | 35000 | 05-MAR-09 |
| 104 | AISHWARYA | 18 | 15000 | 12-FEB-03 |
| 105 | SAYALI | 20 | 75000 | 01-MAR-01 |

QUE 4.

1. Create test\_record(test\_id,test\_type,patient\_name,employee\_no,labno,result) with list partition on result field as below:

P1=(positive)

P2=(negative)

Insert at least 10 records in the table.

**QUERY-**

1)

create table test\_record31(

test\_id number(4),

test\_type varchar(20),

patient\_name varchar(20),

employee\_no number(4),

lab\_no number(4),

result\_p varchar(20)

)

partition by list(result\_p)

(

partition P1 values('positive'),

partition P2 values('negative')

);

2)

INSERT INTO test\_record31 VALUES(1,'covid','SURESH',123,4,'positive');

INSERT INTO test\_record31 VALUES(2,'covid','SITA',456,2,'negative');

INSERT INTO test\_record31 VALUES(3,'TB','SAGAR',789,3,'positive');

INSERT INTO test\_record31 VALUES(4,'covid','RADHA',147,1,'positive');

INSERT INTO test\_record31 VALUES(5,'TB','VIJAY',258,4,'negative');

INSERT INTO test\_record31 VALUES(6,'maleria','VINA',369,3,'positive');

INSERT INTO test\_record31 VALUES(7,'cancer','VIKRAM',741,2,'negative');

INSERT INTO test\_record31 VALUES(8,'maleria','RANI',582,7,'positive');

INSERT INTO test\_record31 VALUES(9,'cancer','SHUBHAM',357,5,'positive');

INSERT INTO test\_record31 VALUES(10,'cancer','SAKHI',159,6,'negative');

3)

SELECT \*FROM TEST\_RECORD31;

**OUTPUT**-

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TEST\_ID** | **TEST\_TYPE** | **PATIENT\_NAME** | **EMPLOYEE\_NO** | **LAB\_NO** | **RESULT\_P** |
| 1 | covid | SURESH | 123 | 4 | positive |
| 3 | TB | SAGAR | 789 | 3 | positive |
| 4 | covid | RADHA | 147 | 1 | positive |
| 6 | maleria | VINA | 369 | 3 | positive |
| 8 | maleria | RANI | 582 | 7 | positive |
| 9 | cancer | SHUBHAM | 357 | 5 | positive |
| 2 | covid | SITA | 456 | 2 | negative |
| 5 | TB | VIJAY | 258 | 4 | negative |
| 7 | cancer | VIKRAM | 741 | 2 | negative |
| 10 | cancer | SAKHI | 159 | 6 | negative |

(B) Display the test\_records which have negative result.

**QUERY-**

SELECT \*FROM TEST\_RECORD31 WHERE RESULT\_P='negative';

**OUTPUT**-

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TEST\_ID** | **TEST\_TYPE** | **PATIENT\_NAME** | **EMPLOYEE\_NO** | **LAB\_NO** | **RESULT\_P** |
| 2 | covid | SITA | 456 | 2 | negative |
| 5 | TB | VIJAY | 258 | 4 | negative |
| 7 | cancer | VIKRAM | 741 | 2 | negative |
| 10 | cancer | SAKHI | 159 | 6 | negative |

QUE 5.

1. Create table Bank with fields BankId, BName, Location. Partition the Bank table based on Location as per following.

BK1 = (Mumbai, Pune, Nashik), BK2 = (Lucknow, Kanpur, Varanasi)

BK3 = (Chandigarh, Mohali, Amritsar), BK4 = (GandhiNagar, Ahmedabad, Surat)

Insert 10 records in Bank table.

**QUERY-**

1)

create table Bank31(

BankId number(4),

BName varchar(20),

BLocation varchar(20)

)

partition by list(BLocation)

(

partition BK1 values('Mumbai','Pune','Nashik'),

partition BK2 values('Lucknow','Kanpur','Varanasi'),

partition BK3 values('Chandigarh','Mohali','Amritsar'),

partition BK4 values('GandhiNagar','Ahmedabad','Surat')

);

2)

INSERT INTO Bank31 VALUES(1001,'BOP','Pune');

INSERT INTO Bank31 VALUES(1002,'BON','Nashik');

INSERT INTO Bank31 VALUES(1003,'BOL','Lucknow');

INSERT INTO Bank31 VALUES(1004,'BOK','Kanpur');

INSERT INTO Bank31 VALUES(1005,'UBOV','Varanasi');

INSERT INTO Bank31 VALUES(1006,'SBI','Mohali');

INSERT INTO Bank31 VALUES(1007,'ICICI','Surat');

INSERT INTO Bank31 VALUES(1008,'CityBank','Amritsar');

INSERT INTO Bank31 VALUES(1009,'BOM','Ahmedabad');

INSERT INTO Bank31 VALUES(1010,'KOTAK','GandhiNagar');

3)

SELECT \*FROM BANK31;

|  |  |  |
| --- | --- | --- |
| **BANKID** | **BNAME** | **BLOCATION** |
| 1001 | BOP | Pune |
| 1002 | BON | Nashik |
| 1003 | BOL | Lucknow |
| 1004 | BOK | Kanpur |
| 1005 | UBOV | Varanasi |
| 1006 | SBI | Mohali |
| 1008 | CityBank | Amritsar |
| 1009 | BOM | Ahmedabad |
| 1007 | ICICI | Surat |
| 1010 | KOTAK | GandhiNagar |

**OUTPUT-**

(B) Add values “Ratnagiri” in BK1 partition.

**QUERY-**

1)

ALTER TABLE BANK31

MODIFY PARTITION BK1

ADD VALUES('Ratnagiri');

INSERT INTO BANK31 values(1011,'IDBI','Ratnagiri');

2)

SELECT \*FROM BANK31 PARTITION (BK1);

**OUTPUT**-

|  |  |  |
| --- | --- | --- |
| **BANKID** | **BNAME** | **BLOCATION** |
| 1001 | BOP | Pune |
| 1002 | BON | Nashik |
| 1011 | IDBI | Ratnagiri |