

## Lab 04

1. Give the details of items having price > 1000.

$\sigma$  SALEPRICE > 1000 (ITEMS)

select \* from items where saleprice > 1000;

2. Give the details of items having price > 1000 and are belonging to category 5.

$\sigma$  SALEPRICE > 1000 AND CATEGORY\_ID = 5 (ITEMS)

select \* from items where saleprice > 1000 and category\_id = 5;

3. List the Invoices (number, date) of a customer id = 'C05'.

$\pi$  invno, invdate ( $\sigma$  CUSTOMERID = 'C05' (INVOICE))

select invno, invdate from invoice where customerid = 'C05';

4. List all items (code, qty, rate) for invoice number = 1.

$\pi$  itemcode, qty, price ( $\sigma$  CUSTOMERID = 'C05' (INVOICE))

select itemcode, qty, price from invoicedetails where invno = 1;

5. List the Invoices (number, date) of the customer named Harsh.

$\pi$  i.invno, i.invdate ( $\sigma$  c.NAME = 'Harsh' (INVOICE i  $\bowtie$  i.customerid =  
c.cust\_id CUSTOMER c))

select i.invno,i.invdate from invoice i join customer c on  
i.customerid = c.custid where c.name = 'Harsh';

6. List all invoices (inv no, date, customer rid) that have item  
code = 1103

$\pi$  i.invno, i.invdate, i.customerid ( $\sigma$  id.ITEMCODE = 1103 (INVOICE i  $\bowtie$  i.invno = id.invno INVOICEDetails id))

select i.invno,i.invdate,i.customerid from invoice i join invoicedetails id on i.invno = id.invno where itemcode=1103;

7. List all items (inv no, item code, qty) that customer 'C05' has bought.

$\pi$  id.invno, id.itemcode, id.qty ( $\sigma$  i.CUSTOMERID = 'C05' (INVOICEDetails id  $\bowtie$  id.invno = i.invno INVOICE id))

select id.invno,id.itemcode,id.qty from invoicedetails id join invoice i on id.invno = i.invno where i.customerid='C05';

8. List all customers (customer id, name, city) that have bought item 1101

$\pi$  c.cust\_id, c.name, c.city ( $\sigma$  id.ITEMCODE = 1101 (CUSTOMER c  $\bowtie$  c.cust\_id = i.customerid INVOICE i  $\bowtie$  i.invno = id.invno INVOICEDetails ID))

```
select c.cust_id,c.name,c.city from customer c join invoice i on  
c.cust_id=i.customerid join invoicedetails id on i.invno=id.invno  
where id.itemcode=1101;
```

9. List all items (item code, item name) sold on 2011-08-23.

```
 $\pi$  it.item_code, it.item_name( $\sigma$  i.invdate = '2011-08-23' (ITEMS IT  $\bowtie$   
it.item_code = id.itemcode INVOICEDetails id  $\bowtie$  id.invno = i.invno  
INVOICE I))
```

```
select i.item_code,i.item_name from items i join invoicedetails id on  
i.item_code = id.itemcode join invoice iv on id.invno = iv.invno  
where invdate = '2011-01-17';
```

10. List all items (item code, item name) sold in month '2011-07'  
from category=3.

```
 $\pi$  it.item_code, it.item_name( $\sigma$  i.invdate LIKE '2011-07-%' and it.category_id =  
3 (ITEMS IT  $\bowtie$  it.item_code = id.itemcode INVOICEDetails id  $\bowtie$   
id.invno = i.invno INVOICE I))
```

```
select i.item_code,i.item_name from items i join invoicedetails id on  
i.item_code = id.itemcode join invoice iv on id.invno = iv.invno  
where iv.invdate::text like '2011-07-%' and i.category_id=3;
```

11. List customers (customer id, name, city) who are from Gujarat and have bought item items from category=3

```
 $\pi$  c.cust_id, c.name, c.city ( $\sigma$  c.state = 'Gujarat' and it.category_id = 3  
(CUSTOMER C  $\bowtie$  c.cust_id = i.customerid INVOICE i  $\bowtie$  i.invno =  
id.invno INVOICEDetails ID  $\bowtie$  id.itemcode = it.item_code ITEMS  
IT))
```

```
select c.cust_id,c.name,c.city from customer c join invoice i on  
c.cust_id = i.customerid join invoicedetails id on i.invno = id.invno  
join items it on id.itemcode = it.item_code where c.state='Gujarat'  
and it.category_id=3;
```

12. List the items (code, name) of items purchased by customer named 'Dev' on date 2011-08-23

$\pi$  it.item\_code, it.item\_name ( $\sigma$  c.cust\_name = 'Dev' and i.invdate = '2011-08-23' (ITEMS IT  $\bowtie$  it.item\_code = id.itemcode INVOICEDetails ID  $\bowtie$  id.invno = i.invno INVOICE i  $\bowtie$  i.customerid = c.cust\_id CUSTOMER C))

select it.item\_code, it.item\_name from items it join invoicedetails id on (it.item\_code = id.itemcode) join invoice i on (id.invno = i.invno) join customer c on (i.customerid = c.cust\_id) where c.name = 'Dev' and i.invdate = '2011-08-23';