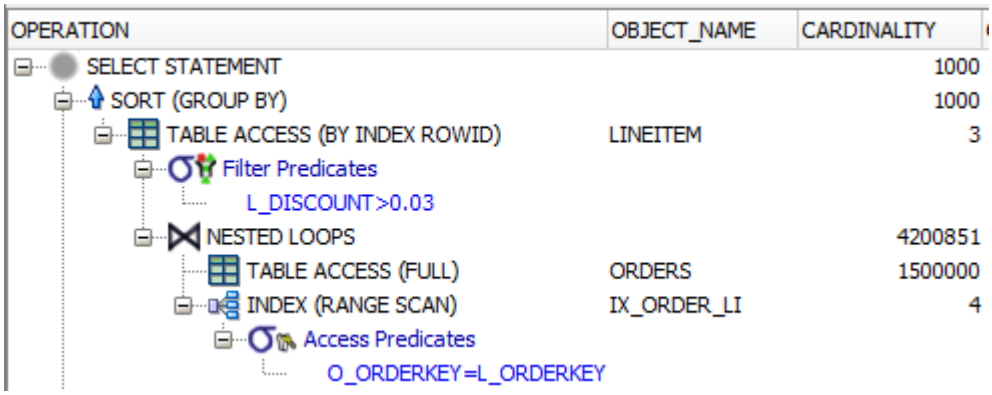
SOLUZIONE

```
CREATE TABLE CAMERE
    (C_IdCamera NUMBER(5,0),
     C_Numero NUMBER(5,0),
       C_Tipo VARCHAR2(2 BYTE),
       PRIMARY KEY (C_IdCamera)
);

CREATE TABLE CLIENTI
    (CL_IDCliente NUMBER(5,0),
     CL_Nome VARCHAR2(20 BYTE),
       CL_Cognome VARCHAR2(20 BYTE),
       CL_Tel VARCHAR2(20 BYTE),
       PRIMARY KEY (CL_IDCliente)
);

CREATE TABLE PRENOTAZIONI
    (
     P_dataPrenot DATE,
       P_dataArrivo DATE,
       P_dataPartenza DATE,
       P_IDCamera NUMBER(5,0),
       P_numPersone NUMBER(5,0),
       P_IDCliente NUMBER(5,0),
       P_prezzo NUMBER(5,0),
     PRIMARY KEY (P_DataArrivo, P_IDCamera),
       FOREIGN KEY (P_IDCliente) REFERENCES CLIENTI (CL_IDCliente),
       FOREIGN KEY (P_IDCamera) REFERENCES CAMERE (C_IDCamera)
  );


create or replace procedure TipiCamerePrenotate(dataPresenza date, dataPrenot
date) is

cursor curTipo(vDPren date, vDEval date) is
  Select C_Tipo, count(P_IDCamera) as NumOccupate
  from  CAMERE left outer join PRENOTAZIONI on (C_IDCAMERA=P_IDCamera and
P_DataArrivo<=vDEval AND P_DataPartenza>vDEval  AND P_DataPrenot<=vDPren )
  group by C_Tipo
  order by 1 ;

vLYdataPres date:=add_months( dataPresenza, -12 );
vLYdataPrenot date:=add_months( dataPrenot, -12 );

begin
dbms_output.put_line('Camere prenotate al '|| dataPrenot || ' per la data ' ||
dataPresenza);
for vTipo in curTipo(dataPrenot,dataPresenza) loop
            dbms_output.put_line('TipoCamera '||vTipo.C_Tipo || ' occupazione:
'||vTipo.NumOccupate);

end loop;

dbms_output.put_line('Camere prenotate al '|| vLYdataPrenot || ' per la data '
|| vLYdataPres);
for vTipo in curTipo(vLYdataPrenot,vLYdataPres) loop
            dbms_output.put_line('TipoCamera '||vTipo.C_Tipo || ' occupazione:
'||vTipo.NumOccupate);

end loop;
end;
```

```
SELECT O_CLERK, AVG(L_EXTENDEDPRICE)
FROM TPCD.LINEITEM, TPCD.ORDERS
WHERE O_ORDERKEY = L_ORDERKEY
AND L_DISCOUNT >0.03
GROUP BY O_CLERK;
```



$NP_{LI} = \lceil 6\,001\,215 \times 116 / (4096 \times 0{,}69) \rceil = 246.314$
$NP_{O} = \lceil 1\,500\,000 \times 106 / (4096 \times 0{,}69) \rceil = 56.259$

Sel(L_DISCOUNT>0.03)= (0.1-0.03)/(0.1-0)=0.7

$NL_{IX\_ORDER\_LI} = \lceil (1.500.000 \times 4 + 6.001.215 \times 4) / (4096 \times 0{,}69) \rceil = 10.617$

$CostoAccesso_{LI} = 2 + \lceil 1/1.500.000 \times 10.617 \rceil + \lceil 1/1.500.000 \times 246.314 \rceil = 4$

Costo Nested Loop Join $_{LI\text{-}O} = 56.259 + 1.500.000 \times 4 =$ **6.056.259**
$NT_{O\text{-}LI} = \lceil 6.001.215 \times 0.7 \rceil = 4.200.851$
$NP_{P\_PS} = \lceil 4.200.851 \times (106+116) / (4096 \times 0{,}69) \rceil = 329.976$

Costo del group by $2 \times 329.976 \times (\lceil \log_{100} 329.976 \rceil + 1) =$ **2.639.808**

Costo Totale = 6.056.259+ 2.639.808= 8.696.067