**PRAKTIKUM SISTEM DATABASE II**

**(Tugas 3)**

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**Disusun Oleh:**

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**PROGRAM STUDI S-1 TEKNIK INFORMATIKA**

**FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM**

**UNIVERSITAS PADJADJARAN**

**JATINANGOR**

**2022**

1. Apa perbedaan dari Indexing, Primary Key, dan Unique?
   1. **Indexing** : index masih diperbolehkan memiliki nilai yang berduplikat di kolom yang sama, berbeda dengan primary key dan unique dimana nilai dalam satu kolom tidak boleh ada yang sama.
   2. **Primary** **Key** : tidak diperbolehkan memiliki nilai NULL
   3. **Unique** : diperbolehkan memiliki nilai NULL
2. Buatlah contoh kasus penggunaan Index dan View masing - masing 2 kasus, tuliskan kasusnya lalu sertakan query dan screenshot!
   1. Index
      1. Menampilkan produk yang dibeli oleh customer yang berasal dari Amerika Serikat beserta deskripsi produknya

Query:

SELECT CONCAT(CONCAT(c.CUST\_FIRST\_NAME, ' '), c.CUST\_LAST\_NAME) AS "FULL\_NAME",

c.NLS\_TERRITORY AS "COUNTRY\_OF\_ORIGIN",

p.TRANSLATED\_NAME AS "PRODUCT\_ORDERED",

p.TRANSLATED\_DESCRIPTION AS "PRODUCT\_DESCRIPTION"

FROM OEHR\_CUSTOMERS c

JOIN OEHR\_ORDERS o

ON (c.CUSTOMER\_ID = o.CUSTOMER\_ID)

JOIN OEHR\_ORDER\_ITEMS i

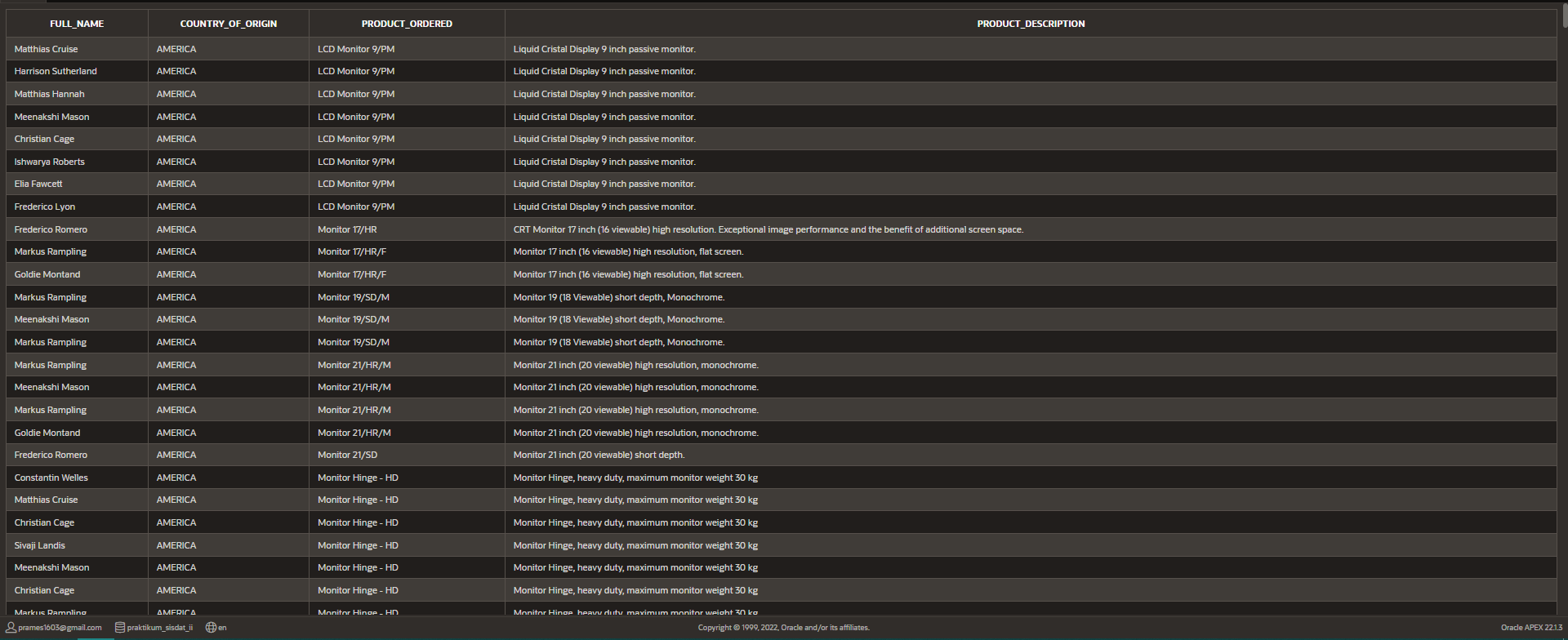
ON (o.ORDER\_ID = i.ORDER\_ID)

JOIN OEHR\_PRODUCT\_DESCRIPTIONS p

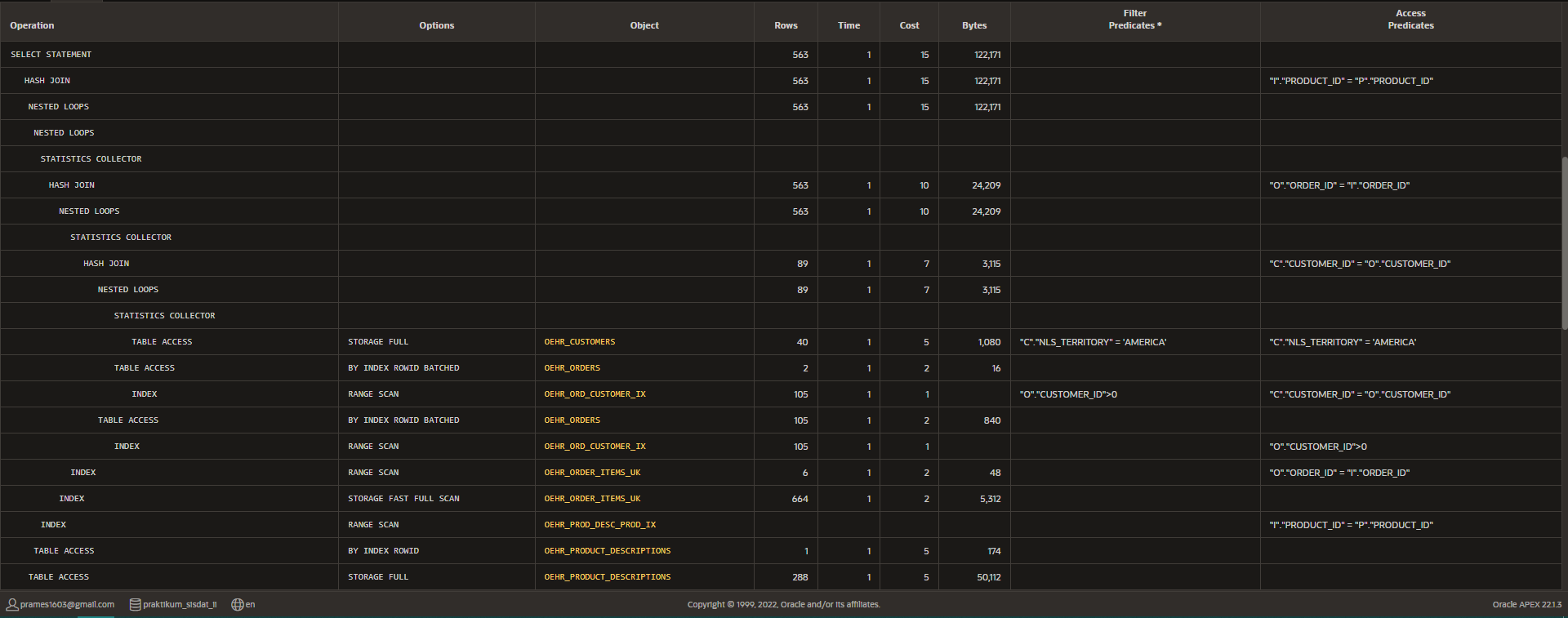
ON (i.PRODUCT\_ID = p.PRODUCT\_ID)

WHERE (c.NLS\_TERRITORY = 'AMERICA');

Output Query:



Before Indexing:

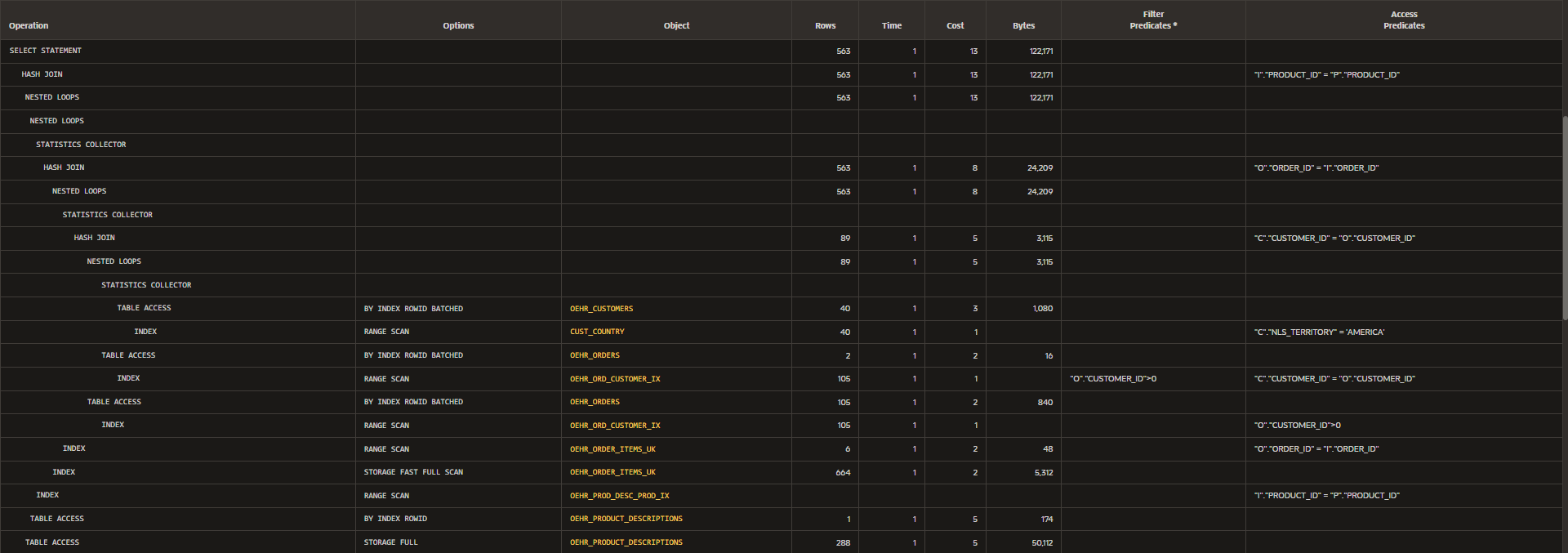


Create Index:

CREATE INDEX CUST\_COUNTRY

ON OEHR\_CUSTOMERS(NLS\_TERRITORY);

After Indexing:



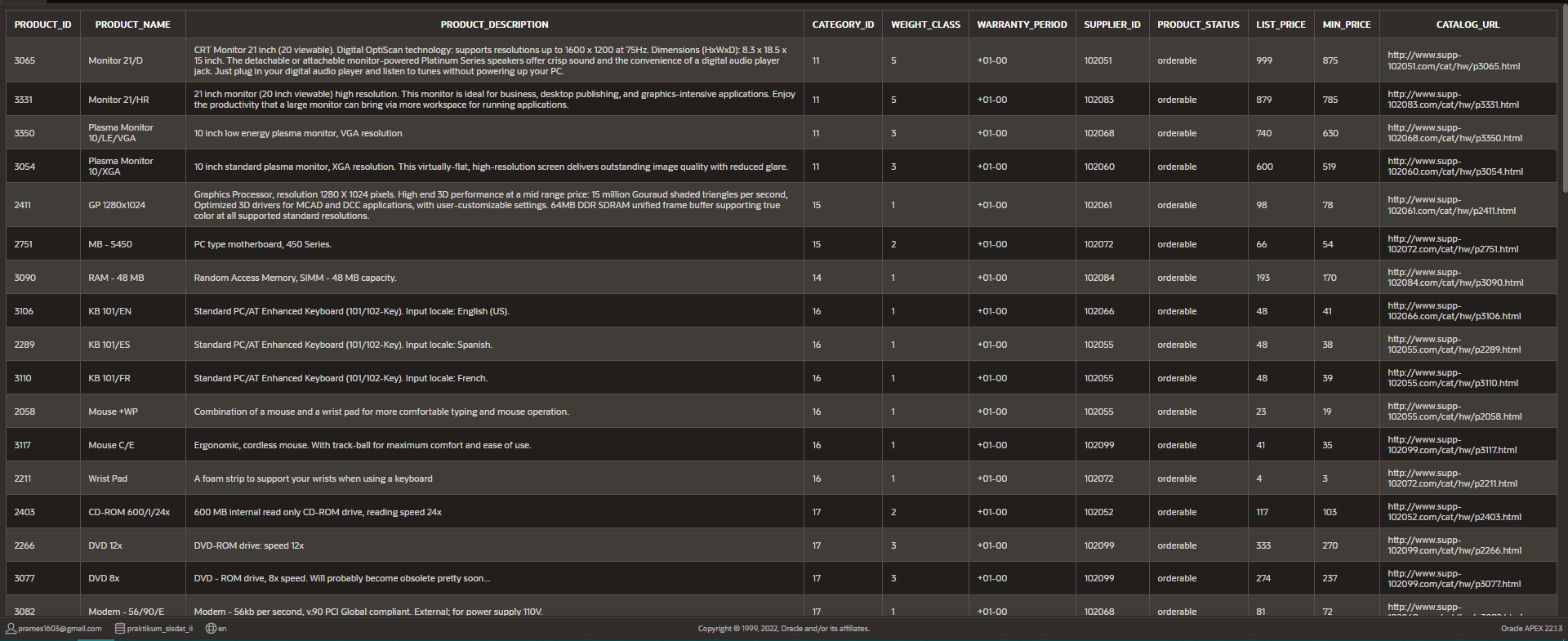
* + 1. Menampilkan produk yang bisa di pesan dengan garansi 1 bulan

Query:

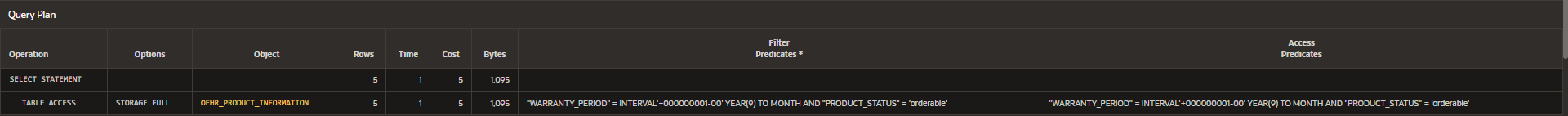
SELECT \* FROM OEHR\_PRODUCT\_INFORMATION

WHERE PRODUCT\_STATUS = 'orderable' AND WARRANTY\_PERIOD = '+01-00';

Output:



Before Indexing:



Create Index:

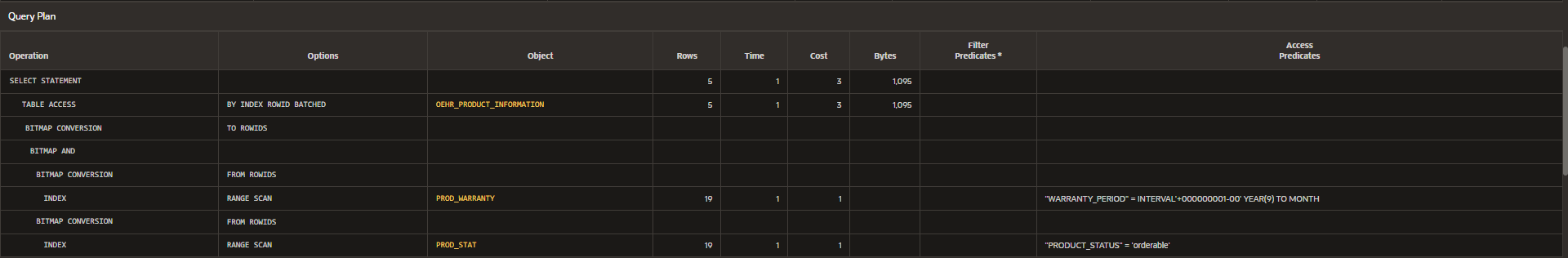
CREATE INDEX PROD\_STAT

ON OEHR\_PRODUCT\_INFORMATION(PRODUCT\_STATUS);

CREATE INDEX PROD\_WARRANTY

ON OEHR\_PRODUCT\_INFORMATION(WARRANTY\_PERIOD);

After Indexing:



* 1. View
     1. Menampilkan karyawan yang menghasilkan gaji diatas 10000

Create View:

CREATE VIEW EmpType1 AS

SELECT EMPLOYEE\_ID, CONCAT(CONCAT(FIRST\_NAME, ' '), LAST\_NAME) AS "EMPLOYEE\_NAME", JOB\_ID AS "JOB"

FROM OEHR\_EMPLOYEES

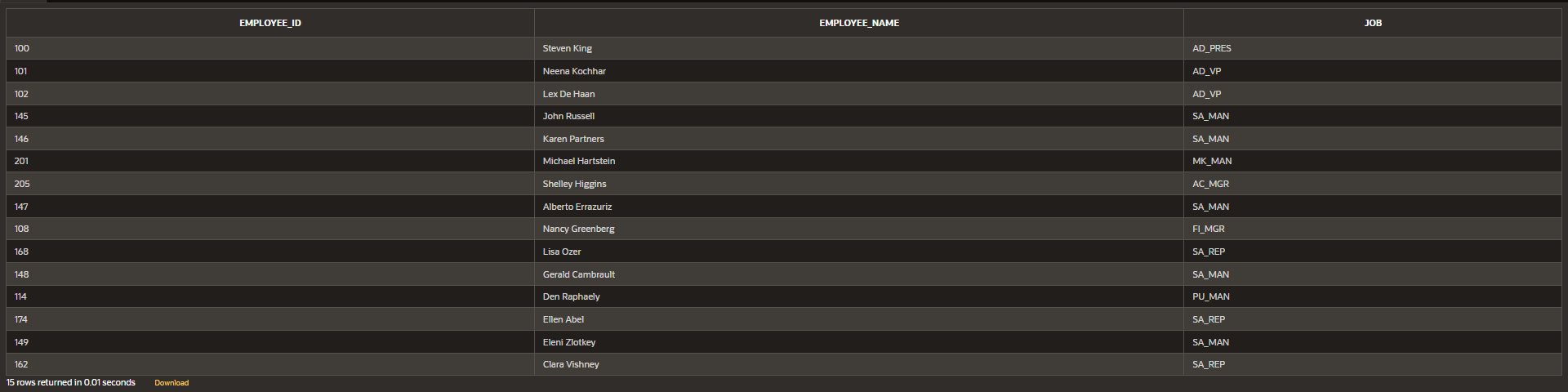
WHERE SALARY > 10000

ORDER BY SALARY DESC;

Calling Query:

SELECT \* FROM EmpType1

Output:



* + 1. Menampilkan alamat lengkap dari lokasi suatu departemen yang berada di Amerika Serikat

Create View:

CREATE VIEW DeptInUSA AS

SELECT d.DEPARTMENT\_NAME,

l.STREET\_ADDRESS,

l.POSTAL\_CODE,

l.CITY,

l.STATE\_PROVINCE

FROM OEHR\_DEPARTMENTS d

JOIN OEHR\_LOCATIONS l

ON (d.LOCATION\_ID = l.LOCATION\_ID)

WHERE l.COUNTRY\_ID = 'US';

Calling Query:

SELECT \* FROM DeptInUSA;

Output:

