

```

#include <iostream>#include <occi.h>using oracle::occi::Environment;using
oracle::occi::Connection;using namespace oracle::occi;using namespace std;int
main(void){ Environment* env = nullptr; Connection* conn = nullptr; Statement*
stmt = nullptr; ResultSet* rs = nullptr; int num; string str; string user
= "dbs211 202f31"; string pass = "15004242"; string constr =
"myoracle12c.senecacollege.ca:1521/oracle12c"; try { env =
Environment::createEnvironment(Environment::DEFAULT); conn = env-
>createConnection(user, pass, constr); std::cout << "connection is
successful" << endl; Statement* stmt = conn->createStatement();
ResultSet* rs = stmt->executeQuery("SELECT employeeNumber,
firstName,lastName , phone, extension FROM employees, offices WHERE
employees.officeCode = offices.officeCode and LOWER(city) = 'san francisco' ORDER
by employeeNumber"); cout << "-----Report 1 (Employee
Report) -----" << endl; cout << "Employee ID
First Name Last Name Phone Extension" << endl; cout
<< " -----" <<
endl; while (rs->next()) { int employeeNumber =
rs->getInt(1); string fname = rs->getString(2); string
lname = rs->getString(3); string phone = rs->getString(4);
string extension = rs->getString(5); cout << " ";
cout.width(12); cout.setf(ios::left); cout <<
employeeNumber; cout << " "; cout.width(14);
cout.setf(ios::left); cout << fname;
cout.width(8); cout << lname;
cout.setf(ios::left); cout.width(4); cout << "";
cout << phone; cout.width(8); cout << " ";
cout << extension << endl; } stmt = conn-
>createStatement(); rs = stmt->executeQuery("SELECT employeeNumber,
firstName, lastName, phone, extension FROM employees e, offices o WHERE
employeeNumber IN (SELECT e1.reportsTo FROM employees e1 LEFT OUTER JOIN employees
e2 ON e1.reportsTo = e2.employeeNumber) and e.officeCode = o.officeCode ORDER BY
employeeNumber"); cout << "-----Report 2 (Manager
Report) -----" << endl; cout << "Employee ID
First Name Last Name Phone Extension" << endl; cout
<< " -----" <<
endl; while (rs->next()) { int employeeNumber =
rs->getInt(1); string fname = rs->getString(2);
string lname = rs->getString(3);
string phone = rs->getString(4); string
extension = rs->getString(5); cout << " ";
cout.width(12); cout.setf(ios::left); cout <<
employeeNumber; cout << " "; cout.width(14);
cout.setf(ios::left); cout << fname;
cout.width(8); cout << lname;
cout.setf(ios::left); cout.width(4); cout << "";
cout << phone; cout.width(8); cout << " ";
cout << extension << endl; } env-
>terminateConnection(conn); Environment::terminateEnvironment(env); }
catch (SQLException & sqlExcp) { cout << "error";
cout << sqlExcp.getErrorCode() << ": " << sqlExcp.getMessage(); }
return 0;}

```