```
/*5.13*/
/*
a.
We need to know the number of attributes and names of attributes of r to decide the number and names of columns in the table.
*/
/*
b.
We can use the JDBC methods getColumnCount() and getColumnName(int) to get the required information.
*/
//c.
static void printTable(String r)
{
  try
  {
  Class.forName("oraclejdbc.driver.OracleDriver"); Connection conn =  DriverManager.getConnection(    "jdbc:oracle:thin:@db.yale.edu:2000:univdb",user,passwd);   Statement stmt = conn.createStatement();
  ResultSet rs = stmt.ExecuteQuery(r);
  ResultSetMetaData rsmd = rs.getMetaData();
  int count = rsmd.getColumnCount(); System.out.println("<tr>");
  for(int i=1;i<=count;i++)
  {
    System.out.println("<td>"+rsmd.getColumnName(i)+"</td>");
  }
  System.out.println("</tr>");
  while(rs.next()
  {
    System.out.println("<tr>");
    for(int i=1;i<=count;i++)
    {
       System.out.println("<td>"+rs.getString(i)+"</td>");
     }
    System.out.println("</tr>");
  }
  stmt.close();
  conn.close();
  }
  catch(SQLException sqle)
  {
    System.out.println("SQLException : " + sqle);
   }
 }
```

```
/*
5.15. a.
*/
create function avg_salary(cname varchar(15))
    returns integer
    declare result integer;
        select avg(salary) into result
        from works
        where works.company_name = cname
    return result;
end
select company_name
from works
where avg_salary(company_name)>avg_salary("First Bank Corporation")

/*
5.15. b.
*/
select company_name
from works
group by company_name
group by company_name
having avg(salary)>(select avg(salary)
                    from works
```

```
/*
5.21
We define triggers for each relationship whose primary key is referenced by a foreign key to another relationship. The trigger is fired whenever a tuple is removed from the reference relationship. The action performed by the trigger is to access all reference relationships and delete all tuples whose foreign key attribute values are the same as the primary key attribute values of the deleted tuples in the reference relationship. These triggers will handle the on delete cascade operation.
*/
```