**Assignment 4 – Declarative languages**

1. **[26] Project 1. C# and SQL – Windows Forms app.**

Use Personnel Database Use Visual Studio to create a database named [8 points] Personnel.mdf. The database should have a table named Employee, with columns for employee ID, name, position, and hourly pay rate. The employee ID should be the primary key. Insert at least five sample rows of data into the Employee table.

Create a Form that includes:

* [2] The Employee table in a DataGridView control.
* [3] Button that, when clicked, sorts the data in ascending order by hourly pay rate.
* [3] A button that, when clicked, sorts the data in descending order by hourly pay rate.
* [4] A text box - let the user specify a name in a text box and then search for that name in the Employee table. The app should display any rows that contain a full or partial match of the specified name.
* [3] A button that, when clicked, displays a message indicating the highest (maximum) pay rate in the table.
* [3] A button that, when clicked, displays a message indicating the lowest (minimum) pay rate in the table.

1. **Chapter 16 – Prolog**

[3 points] Write a Prolog description of your family tree (based only on facts), going back to your grandparents and including all descendants. Be sure to include all relationships.

[3 points] Using the structures parent(X, Y), male(X), and female(X), write a structure that defines mother(X, Y).

[3 points] Using the structures parent(X, Y), male(X), and female(X), write a structure that defines sister(X, Y).