

**C07215/C07515**

## **Advanced Web Technologies**

### **Lab 2 - Answers**

Dr Stephan Reiff-Marganiec  
Department of Computer Science

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**Lab 2 Answer: Database Programming in C# with MySQL**

Sample Answers for the delete employee and advanced Search tasks:

```
public bool deleteEmployeeById(int id) {
    try
    {
        MySqlConnection connection = getConnection();
        connection.Open();
        MySqlCommand mycm = new MySqlCommand("", connection);
        mycm.Prepare();
        mycm.CommandText = String.Format("delete from employee where
            id=?id_para");
        mycm.Parameters.AddWithValue("?id_para", id);
        mycm.ExecuteNonQuery();
        connection.Close();
        return true; //successful
    }
    catch (Exception ex)
    {
        Console.WriteLine(ex.ToString());
        return false; //fail
    }
}
```

```
public List<Employee> advancedSearch(string key) {
    //a list of employees
    List<Employee> employees = new List<Employee>();
    try
    {
        if (key.Contains('*'))
        {
            //replace wild card character with '%'
            key = key.Replace('*', '%');
        }
        else {
            //look up keyword in the whole string if it doesn't contain wild card,
            key = "%" + key + "%";
        }
        //Open connection
        MySqlConnection connection = getConnection();
        connection.Open();
        //assign SQL query
        MySqlCommand mycm = new MySqlCommand("select * from employee
            where lower(address) like '"+key.ToLower()+"'", connection);

        //execute query
        MySqlDataReader msdr = mycm.ExecuteReader();
        while (msdr.Read())
        {
            if (msdr.HasRows)
            {
                Employee e = new Employee();
                //read each column and assign value to corresponding property of Employee
                e.Id = msdr.GetInt32("id");
                e.Firstname = msdr.GetString("firstname");
                e.Lastname = msdr.GetString("lastname");
                e.Salary = msdr.GetDouble("salary");
                e.Address = msdr.GetString("address");
                //add this employee to the list
                employees.Add(e);
            }
        }
    }
}
```

```
        }  
        msdr.Close();  
        connection.Close();  
    }  
    catch (Exception ex) {  
        Console.WriteLine(ex.ToString());  
    }  
    //return employee list  
    return employees;  
}
```