ACME SOFT PTY LTD  
SIMPLE Practical Test

For Web Developer Candidates

# Overview

A requirement exists at ACME SOFT PTY LTD to develop a simple CRUD web application to maintain Employee information. This practical test will allow the candidate to demonstrate that he / she fully understand the concepts needed to write coherent software. The solution should be simple, but should demonstrate your understanding of OO concepts, and how to create maintainable well-structured software. A technical lead will review your solution and the interview process will include discussion of your design and implementation.

## The Objective

* **Objective 1:** Using MS-SQL, create a database that will hold the Employee details.
* **Objective 2:** Write a simple Web Service that will allow the candidate to do simple CRUD operation on the Employee table.
* **Objective 3:** Write a simple application (either ASP.Net Web Form / MVC or Console / Win application or any other) that will consume the above Web Service and present the user with a workable user experience.

## The Constraints

* **Constraint 1:** The candidate should use between 2 to 3 hours to complete the task.
* **Constraint 2:** The code produced should be able to be compiled, at least. Even though, a workable solution is preferred, the reviewer is more concerned with the quality of the design and implementation of the different components in the solution.

## The Opportunity

* **Goal 1:** Demonstrate proper handling of the MS-SQL Database.
* **Goal 2:** Demonstrate proper application layering.
* **Goal 3:** Demonstrate sound knowledge in design patterns & best practices.
* **Goal 4:** Opportunity for the candidate to impress on the UI level

## The Exclusions

* **Exclusion 1:** The candidate is not required to implement any security mechanism.
* **Exclusion 2:** The candidate may use any inversion of control (IOC) container of his/her choice if Dependency Injection (DI) is needed.
* **Exclusion 3:** It is up to the candidate to choose his/her data access design and whether an ORM will be employed or not.
* **Exclusion 4:** The candidate might choose an alternate solution to the problem if any of the objectives pose some kind of issue to the candidate.

# Employee maintenance

This simple application will provide CRUD capabilities on the entity Employee to the user.

## Database Table Structure

