.NET

Sprint Case study

TOP JOBS

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INTRODUCTION

This document outlines a project for the .NET Line of Technology (LOT). The project is to develop TOP JOBS APP. This document contains the requirements, work flow of the system and gives guidelines on how to build the functionality gradually in each of the course modules of the .NET LOT.

SETUP CHECKLIST

Minimum System Requirements

- Intel Pentium 4 and above Windows 7
- Memory 8 GB
- Edge / Chrome browser
- SQL Server 2019 and SQL Server Management Studio
- Visual Studio 2022
- Visual Studio Code

PROBLEM STATEMENT

OBJECTIVE

Need to develop TOP JOB Application.

TopJobs Inc. is a company that renders recruitment services in the US. With a network of more than 30 offices nationwide, the company specializes in the areas of accounting, finance, sales, marketing, information technology, and engineering. It has tie-ups with the employers from various sectors. The company provides services for full-time, part-time, and contractual employment. At present, TopJops advertises the new vacancies in the print media. TopJobs also has a website that is updated with vacancy details. The website also enables jobseekers to upload their resumes. A jobseeker can also visit a TopJobs office to enquire about vacancies and submit the resume.

The current system of TopJobs has several limitations, the primary being its inability to adapt with the evolving technologies in the job marketing segment. Many competitors of the company already have their job portals and are providing recruitment services online. TopJobs is losing its clients to competitors because employers prefer viewing and selecting resumes and communicating with prospective candidates online, before meeting in person. Jobseekers also complain that even after submitting their resumes, they are not updated about the status of their applications. Further, the resumes that TopJobs receives are in different formats and need to be converted into a standard format before processing further.

As a result, many vacancies remain unplaced, and the number of jobseekers seeking TopJobs services has declined, which subsequently has resulted in loss of revenue.

The management of TopJobs has realized that in order to grow and sustain in the job recruitment market, it will need to update its current system to leverage the advantage of the Web. Accordingly, the management has tied up with a software development organization. The management has instructed the organization to create an online job recruitment application that can be used by both employers and jobseekers.

In the first phase, the TopJobs application will automate the process of posting jobs by employers and applying for jobs by jobseekers. Before posting jobs, an employer must register with the application and agree with the terms and conditions of using the application. A registered employer has to pay $300 to access resumes with a single login that expires in 30 days. Currently, the payments of registered employers will be collected by the representatives of TopJobs from the employer's office.

During the subsequent phases, the application will be scaled where employers will be able to choose from multiple pricing packages and also make payments online. In addition, the application will provide a comprehensive platform supported by a social networking infrastructure where both employers and jobseekers can interact with one another.

The TopJobs application should have the following features during the first phase of development:

Functional Requirements

- Application should be accessible to users assigned with the employer, jobseeker, and administrator roles.
- The App should allow an authorized employer to perform the following activities:
    - Register with the application.
    - Post the job requirements.
    - View resumes submitted against a job.

- Shortlist resumes of prospective job seekers.
- Purchase additional logins or extend an existing login.

- The App should allow an authorized jobseeker to perform the following activities:
  - Register with the application.
  - Submit the resume for published jobs.
  - Track the number of times the resume has been viewed.

- The App should have an authorization mechanism to restrict access to administrative functions.

- The App should allow an authenticated administrator to perform the following activities:
  - Manage jobs to ensure that they are assigned the correct categories.
  - Delete jobs that are closed or expired after a specified period.

- The App should have a mechanism to provide a discount on the service fee to the employers who purchase more than a specified number of logins in a month through the system.

- To implement the preceding features, the following specifications have been laid down to design the TopJobs application:

  - Application should be developed in Asp.net MVC and Asp.net Rest API
  - Database Layer can be SQL Server
  - Design, layout, and navigation of the application should be uniform across all Web pages.
  - Job posting activities should be tracked across a user's session.
  - Job application activities should be tracked across a user's session.
  - User authorization should be role-based.
  - Data provided by the user must be validated.

PROJECT STRUCTURE

Description: Create below sample reference project structure, which will help to reuse most of module. You are allowed to bring your own project structure and project to achieve the requirement.
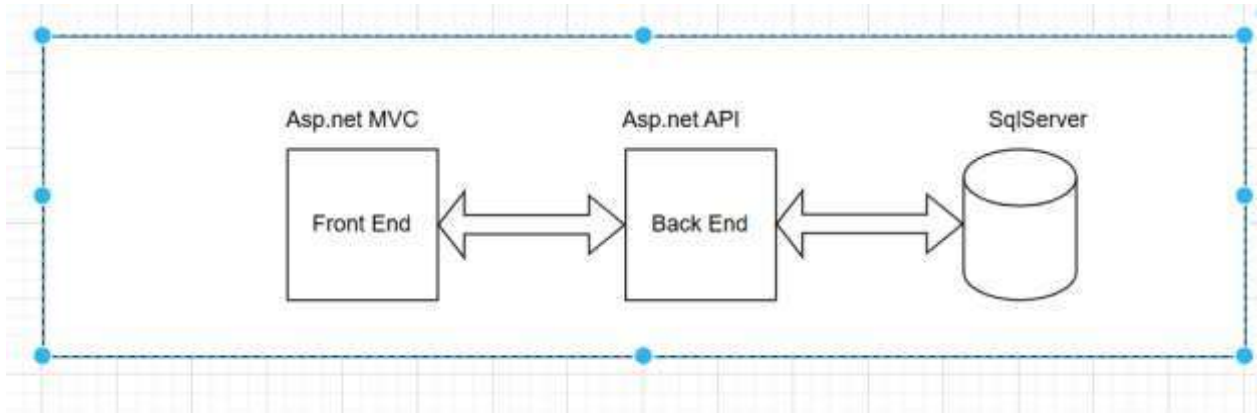
All project should have minimum target framework to – .Net Framework 4.6

Design guidelines

- All the exceptions/errors to be captured and user-friendly message to be displayed.

IMPLEMENTATION

Create Client Application in ASP.NET MVC and Services using ASP.NET Web API

SUMMARY OF THE FUNCTIONALITY TO BE BUILT:

The participants need to develop the Easy Housing Solutions by building the functionality incrementally in each of the course modules of .NET LOT.

Sr. No	Course	Duration (in PDs)	Functionality to be built
1	NET Framework 4.6 Entity Framework ASP.NET MVC ASP.NET Web API	4	Developing Presentation components (ASP.NET MVC, Entity Framework, ASP.NET Web API)