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| Client: | Test Company |
| Project: | Job Information Storage |
| Date: | July 2020 |
| Status: | Draft |
| Draft: | First |

**Streetworks Software**

**Development Specification**

**Storing & Retrieving Job Details**

**Storing & Retrieving Job Details**

**Overview**

Test Company wish to store and retrieve information about their jobs. They require an interface that will allow them to locate jobs based on their search criteria.

A SQL contract developer has suggested the table schema below – their design is not mandatory to be followed but has been suggested by them. Please feel free to comment and adjust as needed for the best solution.

**Key Information**

Tables Contract and District will contain 1,000 rows each. The Job table will contain 100,000 rows

A job must have a contract and district linked to it. A contract must have at least 1 district associated to it. Districts are unique to a contract.

**Deliverables**

* Create an SQL Table structure to store the Job, Contract and District information.
* Create scripts to retrieve data from the database tables and return in a usable format for a web application. A user needs to find a Job based on either the job id, address, contract or district… or a selection of these fields.
* Create a C# web application that uses SQL to show data on a screen. Provide a search interface to find jobs and display a list of results outputting the data in a readable and useful manner. The front end UI should be styled ideally using Bootstrap.
* The code should be in a production-ready state with the assumption of being released to the customer for UAT signoff.

Please supply the example as a complete Visual Studio Project/Solution. SQL needs to be provided in a scripted form that will create any tables or scripts with it (sample data is not necessary), but also adding the SQL project to the solution would be advantageous. The solution should be zipped and emailed to [Kris.clark@sws-group.co.uk](mailto:Kris.clark@sws-group.co.uk) within 5 days of receiving this document.

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**Sample Structure from Contract SQL Developer**

CREATE TABLE [dbo].[contract1] (

[contract\_id] NVARCHAR (50) NOT NULL,

[contract\_desc] NVARCHAR (50) NULL,

[contract\_canimport] NVARCHAR (50) NULL,

[contract\_inactive] BIGINT CONSTRAINT [InactiveYesOrNo] DEFAULT ((0)) NOT NULL,

[contract\_taskvaluation] SMALLINT CONSTRAINT [Value1to10] DEFAULT ((0)) NULL,

[contract\_nillrevenue] INT CONSTRAINT [value-1000to1000] DEFAULT ((0)) NULL,

CONSTRAINT [aaaaa] PRIMARY KEY NONCLUSTERED ([contract\_id] ASC)

);

CREATE TABLE [dbo].[district1] (

[district\_id] NVARCHAR (50) NOT NULL,

[contract\_id] NVARCHAR (50) NOT NULL,

[district\_desc] NVARCHAR (50) NULL,

[district\_address] NVARCHAR (255) NULL,

[district\_postcode] NVARCHAR (12) NULL,

[district\_primary] INT CONSTRAINT [IsPrimaryYesOrNo] DEFAULT ((0)) NULL,

CONSTRAINT [bbbbb] PRIMARY KEY NONCLUSTERED ([district\_id] ASC, [contract\_id] ASC),

)

CREATE TABLE [dbo].[job1] (

[job\_id] UNIQUEIDENTIFIER NOT NULL,

[application\_id] NVARCHAR (50) NULL,

[contract\_id] NVARCHAR (50) NOT NULL,

[district\_id] NVARCHAR (50) NULL,

[masterjob\_id] INT NULL,

[job\_address] NVARCHAR (255) NULL,

CONSTRAINT [PK\_job] PRIMARY KEY NONCLUSTERED ([job\_id] ASC)

);