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| BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY |  |
| School of Computing and Academic Studies | **Assignment #2** |
| Program: Computer Systems Technology | ***COMP-4976*** |

# Assignment #2 Due: Fri Mar 6, 2015 by 11:59 PM

This assignment is to be done in pairs of two individuals. Your lab instructor will determine how pairs are selected.

The solution for the requirements will be done in two separate assignments. Assignment 2 will build the lookup tables, users, and roles. Assignment 3 will complete all other requirements. Student teams will not change for assignments 2 & 3.

The application will be based on the ASP.NET MVC 5 Internet Application template in Visual Studio 2013. You will use .NET Framework 4.5.1, C#, Entity Framework 6.0 (Code First) and a *localdb*.

## Background

This is a realistic industry project. A fictitious charity organization named *The Good Samaritan* are required to store data about their clients and subsequently generate ad-hoc reports with the data.

## Roles

The following security roles need to be created:

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| Administrator | Worker | Reporter |

## Users

Seed the database with the following users:

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| --- | --- | --- |
| **Email** | **Password** | **Role** |
| adam@gs.ca | P@$$w0rd | Administrator |
| wendy@gs.ca | P@$$w0rd | Worker |
| rob@gs.ca | P@$$w0rd | Reporter |

## Clients Entity

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Type** | **Description** |
| Client Reference Number | Integer | Auto incremented starting at 1 |
| Fiscal Year | From Lookup Tables | 10-11; 11-12; 12-13; 13-14; 14-15; 15-16; 16-17 |
| Month | Integer | Example: 10 for October |
| Day | Integer | Example: 2 for October 2 |
| Surname | String | Family Name |
| First Name | String |  |
| Police File Number | String | Format: 99-99999 (example: 14-77852). This is null if there is no police file number |
| Court File Number | Integer | Null if there is no court file number |
| SWC File Number | Integer |  |
| Risk Level | From lookup table | High; DVU; null |
| Crisis | From lookup table | Call; Accompaniment; Drop-In |
| Service | From lookup table | File; N/A  (Defaults to ‘File’ if SWC exists, ‘N/A’ if SWC is blank) |
| Program | From lookup table | Crisis; Court; SMART; DVU; MCFD |
| Risk assessment assigned to | String |  |
| Risk Status | From lookup table | Pending; Complete; null |
| Assigned Worker | From lookup table | Michelle; Tyra; Louise; Angela; Dave; Troy; Michael; Manpreet; Patrick; None |
| Referral Source | From lookup table | Community Agency; Family/Friend; Government; CVAP; CBVS |
| Referral Contact | From lookup table | PBVS; MCFD; PBVS; VictimLINK; TH; Self; FNS; Other; Medical |
| Incident | From lookup table | Abduction; Adult Historical Sexual Assault; Adult Sexual Assault; Partner Assault; Attempted Murder; Child Physical Assault; Child Sexual Abuse/Exploitation; Criminal Harassment/Stalking; Elder Abuse; Human Trafficking; Murder; N/A; Other; Other Assault; Other Crime – DV; Other Familial Assault; Threatening; Youth Sexual Assault/Exploitation |
| Abuser Surname, First Name | String | Example: Smith, Bob |
| Abuser Relationship | From lookup table | Acquaintance; Bad Date; DNA; Ex-Partner; Friend; Multiple Perps; N/A; Other; Other Familial; Parent; Partner; Sibling; Stranger |
| Victim of Incident | From lookup table | Primary; Secondary |
| Family Violence File | From lookup table | Yes; No or N/A |
| Gender | Char | M or F or Trans |
| Ethnicity | From lookup table | Indigenous; Asian; Black; Caucasian; Declined; Latin; Middle Eastern; Other; South Asian; South East Asian |
| Age | From lookup table | Adult >24 <65; Youth >12 <19; Youth >18 <25; Child<13; Senior >64 |
| Repeat Client (current fiscal year only) | From lookup table | Yes; null |
| Duplicate File (current fiscal year only) | From lookup table | Yes; null |
| Number of Children 0-6 | Integer |  |
| Number of Children 7-12 | Integer |  |
| Number of Children 13-18 | Integer |  |
| Status of File | From lookup table | Reopened; Closed; Open |
| Date Last Transferred | DateTime |  |
| Date Closed | DateTime |  |
| Date Re-opened | DateTime |  |

For cases where *Program = Smart*, these additional items of data are captured.

## Smart Entity

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| **Field Name** | **Type** | **Description** |
| Client Reference Number |  | Foreign Key to Clients Entity |
| Sex Work/Exploitation | From lookup table | Yes; No or N/A |
| Multiple Perpetrators | From lookup table | Yes; No or N/A |
| Drug-facilitated Assault | From lookup table | Yes; No or N/A |
| City of Assault | From lookup table | Surrey; Abbotsford; Agassiz; Boston Bar; Burnaby; Chilliwack; Coquitlam; Delta; Harrison Hot Springs; Hope; Langley; Maple Ridge; Mission; New Westminster; Pitt Meadows; Port Coquitlam; Port Moody; Vancouver; White Rock; Yale; Other – BC; Out-of-Province; International |
| City of Residence | From lookup table | Surrey; Abbotsford; Agassiz; Boston Bar; Burnaby; Chilliwack; Coquitlam; Delta; Harrison Hot Springs; Hope; Langley; Maple Ridge; Mission; New Westminster; Pitt Meadows; Port Coquitlam; Port Moody; Vancouver; White Rock; Yale; Other – BC; Out-of-Province; International |
| Accompaniment Minutes | Integer |  |
| Referring Hospital | From lookup table | Abbotsford Regional Hospital; Surrey Memorial Hospital; Burnaby Hospital; Chilliwack General Hospital; Delta Hospital; Eagle Ridge Hospital; Fraser Canyon Hospital; Langley Hospital; Mission Hospital; Peace Arch Hospital; Ridge Meadows Hospital; Royal Columbia Hospital |
| Hospital Attended | From lookup table | Abbotsford Regional Hospital; Surrey Memorial Hospital; Burnaby Hospital; Chilliwack General Hospital; Delta Hospital; Eagle Ridge Hospital; Fraser Canyon Hospital; Langley Hospital; Mission Hospital; Peace Arch Hospital; Ridge Meadows Hospital; Royal Columbia Hospital |
| Social Work Attendance | From lookup table | Yes; No or N/A |
| Police Attendance | From lookup table | Yes; No or N/A |
| Victim Services Attendance | From lookup table | Yes; No or N/A |
| Medical Only | From lookup table | Yes; No or N/A |
| Evidence Stored | From lookup table | Yes; No or N/A |
| HIV Meds | From lookup table | Yes; No or N/A |
| Referred to CBVS | From lookup table | Yes; No; PVBS Only; N/A |
| Police Reported | From lookup table | Yes; No or N/A |
| Third Party Report | From lookup table | Yes; No or N/A |
| Bad Date Report | From lookup table | Yes; No or N/A |
| Number Transports Provided | Integer |  |
| Referred to Nurse Practitioner | Boolean | Yes or No |

You will notice that most of the data items above are entered from lookup tables. This means that the data entry screen would have a drop-down-list that pulls the data from a lookup table in the database

* There can be more than one record per client. Example: a person may come in or call and start a record but it goes nowhere. It still needs to be recorded. This same individual may then come in later, days or weeks, and it makes it to a state where a file is started and services begin (client is assigned a new “SWC File Number”).
* There can also be a file closed and then the same client returns. This would be a new record.
* There can also be multiple files for a client, several different programs will be provided for the client.

# Actors

### Administrator

Administrators fulfill these functions:

* Maintain all lookup tables. This involves the ability to *add*, *edit*, *display* and *delete*.
* Disable (lockout) users
* Add and delete roles
* Add and remove users to/from roles

### Worker

* The *worker* is the desk officer at The *Good Samaritan* charity organization who receives clients and enters or updates their data.
* The *worker* is also able to generate ad-hoc reports.

### REPORTer

* Members of the Reporter role only have privileges to generate ad-hoc reports.

# Requirements

* You will use the Identity Framework for forms-based authentication
* The above system will be completed in two assignments (I.E. Assignments 2 & 3).

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| Part 1  (Assignment 2) | This involves tasks that can be accomplished by the administrator. You will develop and implement the following:   * Build the UI * Develop all the lookup tables using the code 1’st approach * Create required users and roles * Seed the database with all lookup tables, users, and roles * Deploy the application to Azure |
| Part 2  (Assignment 3) | This involves tasks that can be accomplished by the office worker. You will develop and implement the following:   * Building the data entry screens * Develop ad-hoc reports * Implement Ajax and AngularJS, where appropriate |

* All scripting will be done using the *Razor* view engine.

Lookup Lists

City of assault

City of residence

Referral Hospital

Hospital Attended

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* All lookup table controllers must have appropriate links on the home page in the form of a drop-down-menu.
* Change the default twitter bootstrap theme by downloading an alternative CSS file and pointing to it locally. You are not allowed to simply point to a CDN.
* You will have a single *localdb* database file named *GoodSamaritan.mdf* that resides in the *App\_Data* directory of your application
* The connection string for your database will be placed in your *web.config* file
* Only users with the Administrator role are allowed to manage lookup tables, roles, and users
* The administrator role cannot be deleted and must always have at least one member.
* Only administrators should see lookup tables in the navigation bar.
* Anyone is allowed to register as a user.
* Your data model should restrict the field widths string properties
* You must NOT allow users to enter more characters for a field than the database column allows
* Deploy your application to your Azure VM using URL a2.<your domain name>

## Readme.docX

Include a *docs/readme.doc(x)* Microsoft Word file with the following information:

* Your name(s), student number(s), and email address(es)
* The URL of your assignment 2 deployment on your Azure VM (a1.<your domain name>)
* What you have completed and what you have not completed
* Any major challenges
* Include the marking guide (show at the bottom of this document) inside your readme.doc file.

### Deliverables:

Source and database files for fully functional ASP.NET web application.

### Submission:

* Ensure that it is easy for the marker to install your application in Visual Studio
* Your submission will be 1 zip file of your solution and all of its following contents:
  + Source code (\*.sln, \*.cshtml, \*.cs, \*.css, \*.gif, \*.txt, \*.jpg, \*.mdf …)
  + Microsoft Word readme.docx file placed in the docs directory of your web application
* Each team needs to make one deployment and one submission
* Your submission consists of a ZIP file named: “FirstNameLastName(1)\_FirstNameLastName(2)\_A2.zip”. (example: *JaneDoe\_JohnDoe\_A2.zip*)
* Do not include unnecessary files that are not needed in your submission.
* In your *web.config* file, make sure you have a relative address to your database
* Deploy your assignment to *a2.<your domain name>*
* Submit your ZIP file into the Assignment-2 dropbox in D2L together with a comment indicating the URL of your externally available website
* Late submissions are not accepted.

## COMP-4976 assignment 2 marking guide:

Name 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Set: \_\_\_\_

Name 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Site URL: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| Task | Max Mark | Actual Mark |
| Contents & quality of MS Word submission document: | 2 |  |
| Roles and users created appropriately and seeded with data | 2 |  |
| Only administrators allowed to manage lookup tables, roles, and users | 2 |  |
| Functionality to disable users & add/remove users to/from roles | 3 |  |
| Create, Display, Edit and Delete Lookup tables | 3 |  |
| All lookup tables seeded with data | 2 |  |
| Enhanced look and feel | 2 |  |
| Validations | 3 |  |
| MVC, C# and ASP.NET coding best practices   * Database in App\_Data directory | 1 |  |
| TOTAL | 20 |  |

If your submission does not comply with submission rules then you will lose 10% of the mark.

You will get a mark of zero if you did not use the “Entity Framework” and the Code-First development model.

You will lose 50% of the mark if you do not properly deploy your assignment to azure. This also includes the requirement to use a2 for the URL host name.