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## Enterprise Frameworks Project Proposal

Fintan Costello (x11106441)

Alan McCormack (x11102616)

Darragh Breathnach (x11106417)

Eoin O’Loideain (x11109513)

## Overview

The application will allow users to log into a website, and build custom reports based on data pertaining to campaign contributions during the 2006 and 2010 local elections in Toronto, Canada. Users will be able to filter reports by a number of criteria, and their reports will be automatically saved on their user account. Reports will be available as HTML, PDF or other formats.

Some sample reports will be made available to all users demonstrating the possibilities of the application. These reports may use Google Maps and D3 to visualise the data.

## Identify specific dataset

The dataset to be used is a breakdown of campaign contributions and election results for the following elections in Toronto, Canada:

* Mayoral Race 2006, 2010
* Council Elections, 2006, 2010

All data is taken from the Open Data Initiative in Toronto, located at <http://www.toronto.ca/open>. The data is in Excel format.

## Identify outputs for the user – describe use cases

The user interaction with the application will be as follows:

* User will log into to application; if it is their first access then they will be prompted to register
* Sample reports are available for all users
* User is given a brief explanation of the datasets.
* User builds custom reports by selecting from dropdown menus or similar, filtering on the election type, candidate name, ward number, and so on
* The report is built for the user and displayed on screen. Options are given to export the report as a PDF or spreadsheet.

All user-generated reports will be stored in the database and will be accessible on subsequent logins.

## Typical User Queries

The typical report building sequence will be:

1. Select a specific election (i.e. 2010 city council election)
2. Filter by one of the following:
   1. Candidate name
   2. Contributor name
   3. Post Code or Ward Name
   4. Amount of Donation
   5. Contribution type (personal, services, etc.)
3. Create report and display on screen
4. Export report in alternative format

## Data Model

Toronto is divided into 44 electoral wards. Each ward is has 42 subdivisions, numbered 1-34 and then 93-99.

***Mayoral Election 2006 / 2010***

* Each candidate runs in all 44 city wards and an individual vote count for each ward and each subdivision are given. Totals for each subdivision and an overall total are given
* Campaign contributions are not listed with a ward number as the candidate runs in all wards
* Campaign contributors are listed by postcode, amount donated, contribution type (i.e. cash) and candidate donated to

***Council Elections 2006 / 2010***

* Each candidate runs in 1 ward and an individual vote count for that ward and each subdivision are given. Totals for each subdivision and an overall total for that ward are given
* Campaign contributors are listed by postcode, ward number, amount donated, contribution type (i.e. cash) and candidate donated to

***Sample Reports to be created***

1. A report which maps the campaign contributions to the Mayoral and Council races using the postcode as key identifier – i.e. which areas contributed most money during the election campaign? (raw data and heat map)
2. A report which shows the correlation between the total amount of contributions made and the number of votes cast for a specific candidate – i.e. does a higher level of campaign contributions translate into more votes for that candidate? (raw data)
3. A report which shows the increase or decrease of campaign contributions per ward from 2006 to 2010 – i.e. how has the amount of money donated to candidates change from one election to the next? (raw data, bar chart)

## Populate the database with datasets

As part of the business logic of the application, the data, contained in csv files, will be read into the database. This data is currently clean, although prolific.

## Decide what data manipulation is required – (C#)

Data manipulation may be limited, due to the nature of the existing data, i.e. clean.

The following manipulations may be required:

* Xxx
* Xxx
* xxxxx

## Design interface to the database – (ASP MVC)

TBD or webpages???

## Frontend design (ASP MVC)

* Login screen – do we need login?
* New user registration screen
* Home screen with list of stored reports
* Report query screen
* Report output screen