# Design Report

Introduction

  This report presents the design and structure of the web application. It is designed for researchers and participants to gather data regarding synesthesia. The focus is on a good design on the user interface and it is important that the pages are practical and easy to use, both for researchers and participants.

  Throughout this report we cover the details of page navigation, table schema and prototypes on an abstract level. Coding rules and design along with related rules will also be presented.

Navigation diagram

This diagram shows every possible window, both for admins and users, however this does not represent a final design. Non-identified users can navigate through all of the survey program. Logged in users can view their account and finished surveys. Logged in users have to have admin privileges in order to access the admin promotion page as well as the survey configurations.
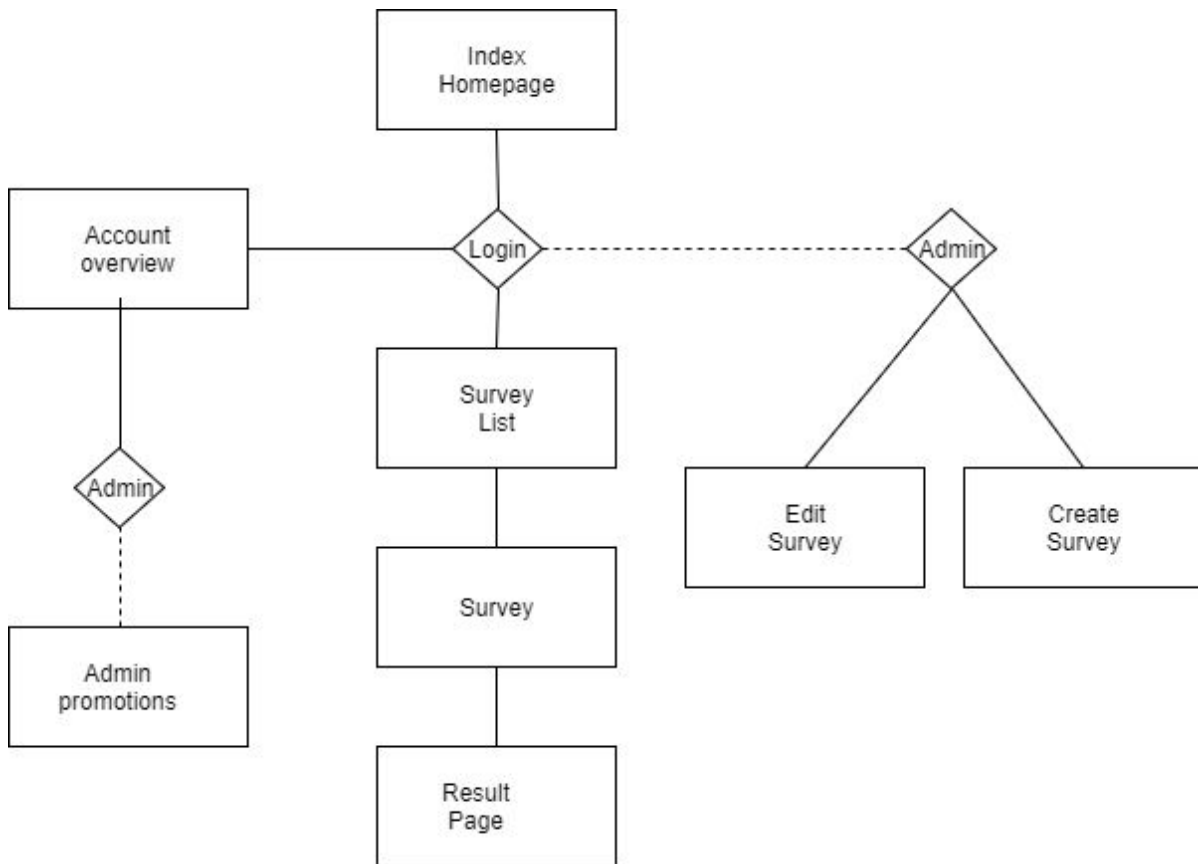
Table Schema

The table schema is a way to logically describe the entire configuration of a database, including its tables, relations and sometimes it's objects. This is done in order to have a better understanding of the connections between tables in the database.
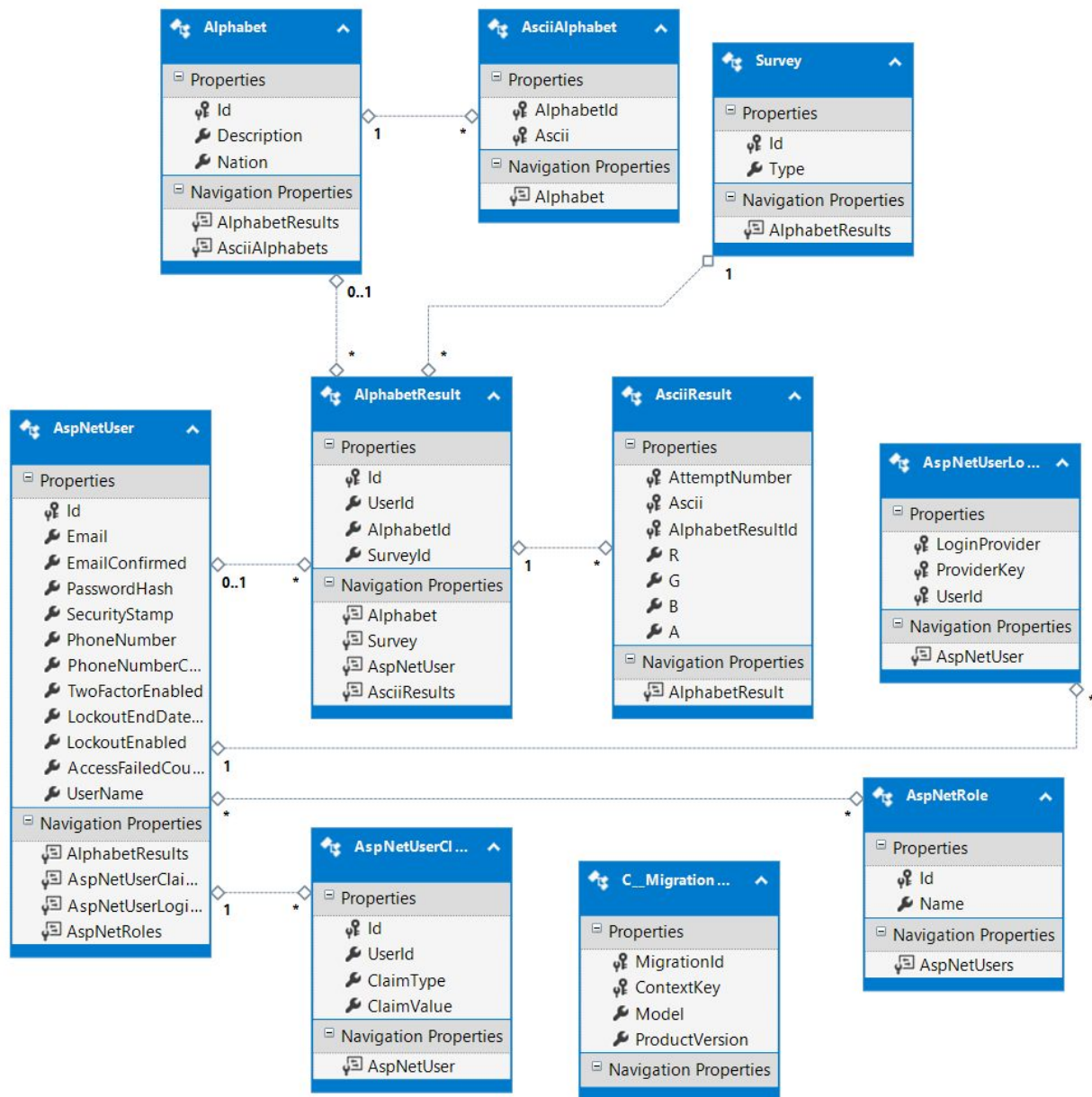
Coding rules

The following is a description of coding conventions that are used as guidelines throughout this project. The reason for the rules is consistency, readability and it's easier for new developers to maintain and add to the system.

The rules cover the general coding conventions in addition to some C# and MSSQL database preferences regarding naming columns and functions.

General programming rules

The code shall be written in English, including comments.

Comments for code functionality shall be placed one line above functions.

Code lines are not to exceed 100 symbols.
In special cases where they need to exceed the limit, you cut the line and continue with an indented line.

Indentation is applied with the tab key. (Rather than spaces which are less consistent)

C#

Naming

Names for every variable, class and function shall be informative.

Variable names shall be constructed under the camelCasing method.

Class names shall be constructed under the PascalCasing method.

Constant and read-only variables shall be UPPERCASE with an underscore to induce space.

Functions

Curly brackets shall be located below function declarations, if/else statements and loops.
If there is only one command following the statement, curly brackets may be omitted.

A single space will separate conditions from the if/foreach keyword.

A single space will also separate variables and operators.

"if(x>10)" is incorrect, whereas **"if (x > 10)"** is correct.

Database

Tables, columns and rows shall be named in English and should also be descriptive.

Table, column and row names shall be constructed under the camelCasing method.

All tables shall include ID columns, which will be the primary key for each element.

> The ID will be auto-incremented and unique for all elements.
>
> ID columns can be omitted for symbol/grapheme result tables.