Undergraduate Student Award Database

UNIVERSITY of WASHINGTON

MLIS Capstone 2018
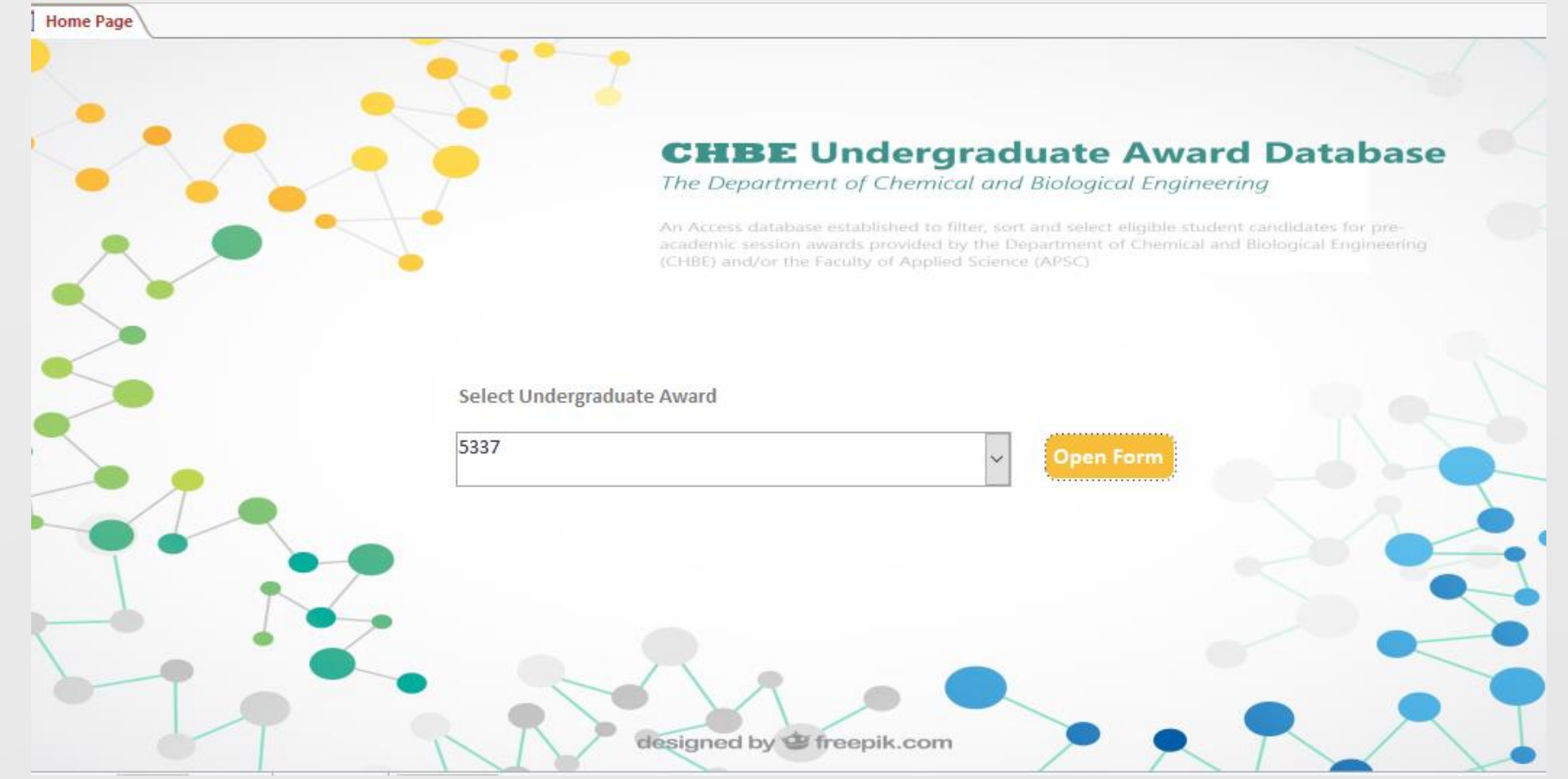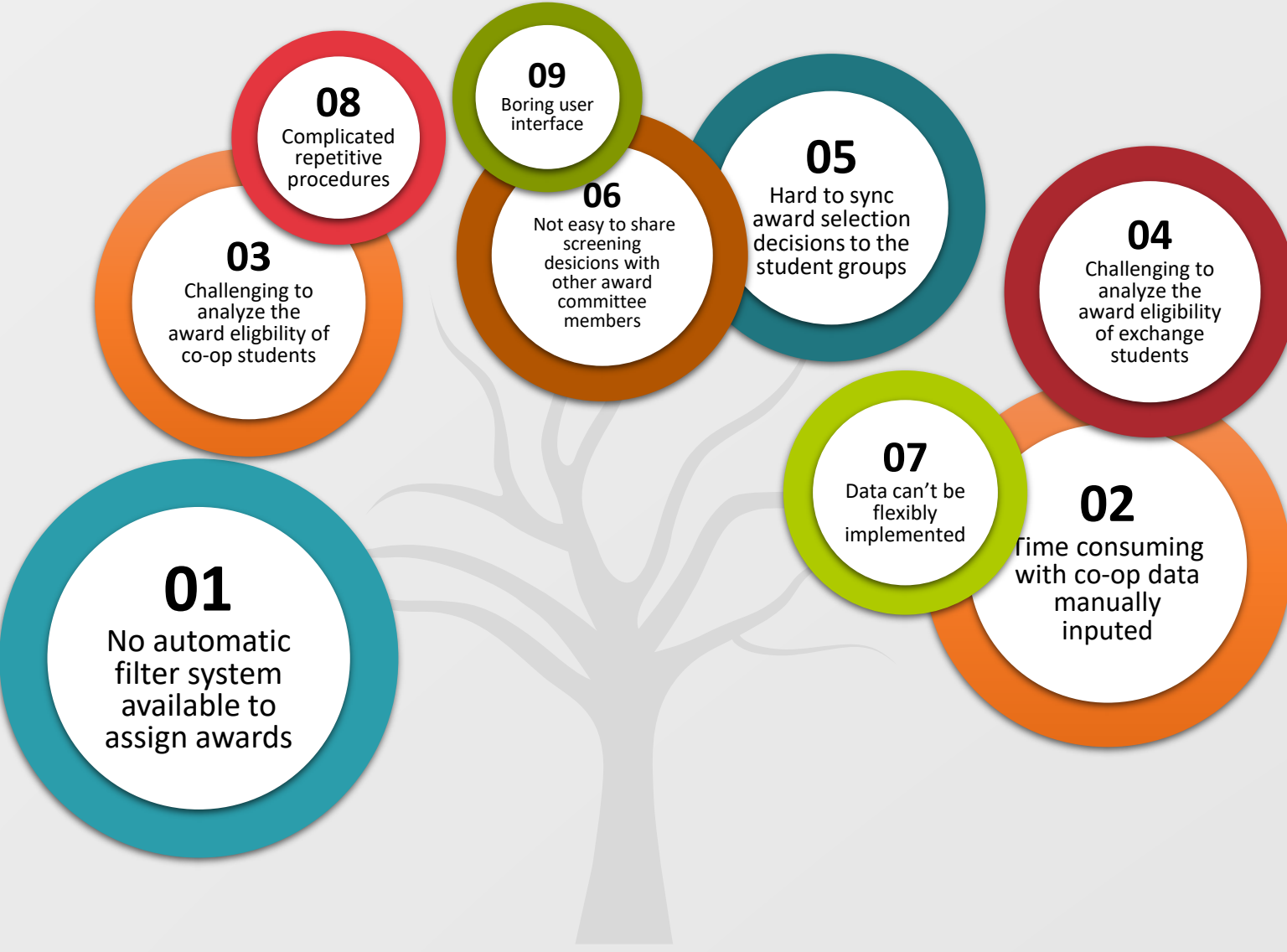
An Access database to sort, filter and select potential student candidates for the pre-academic session undergraduate awards, based on the general UBC selection criteria as well as the requirements listed for each specific award provided by the Department of Chemical & Biological Engineering as well as the Faculty of Applied Science.
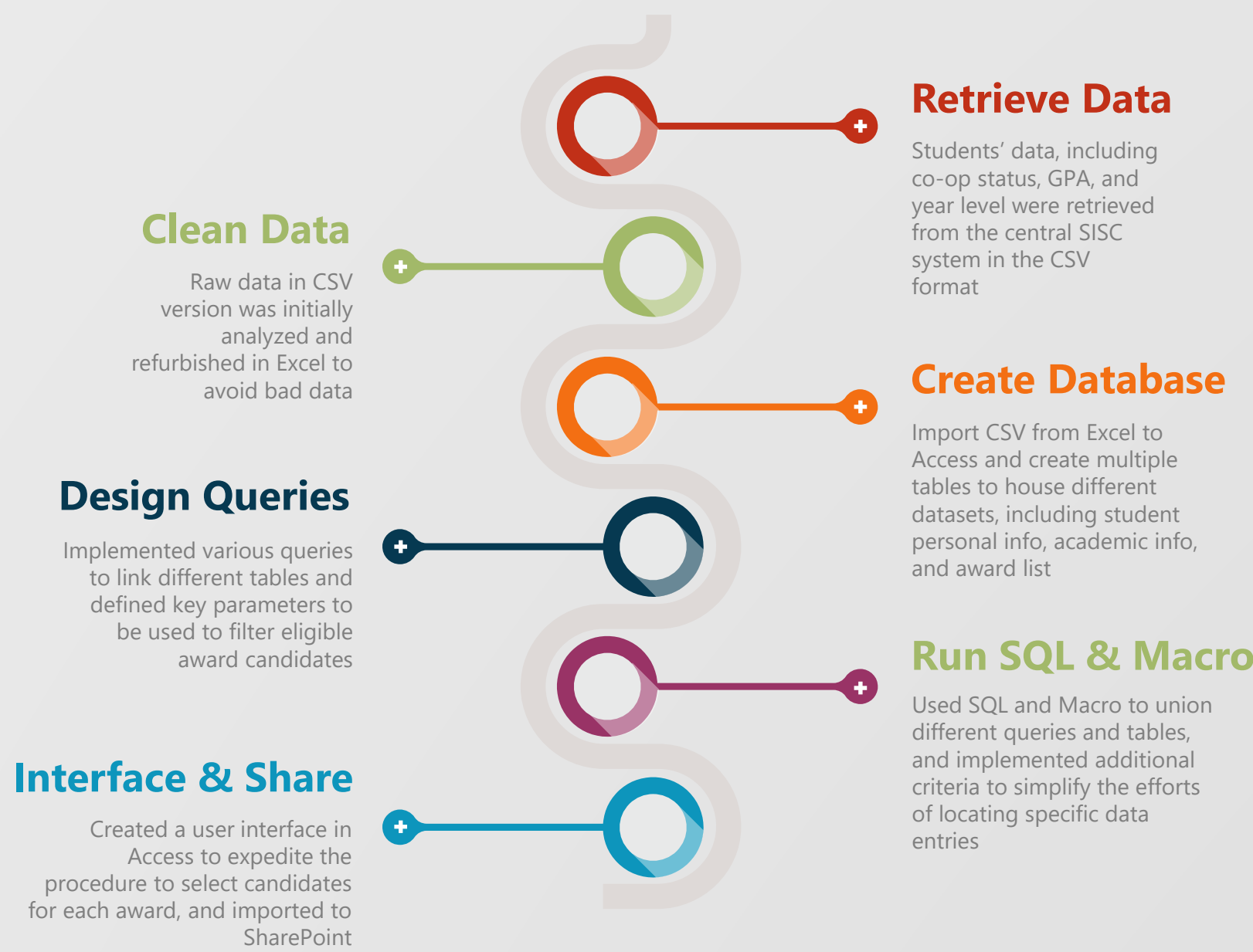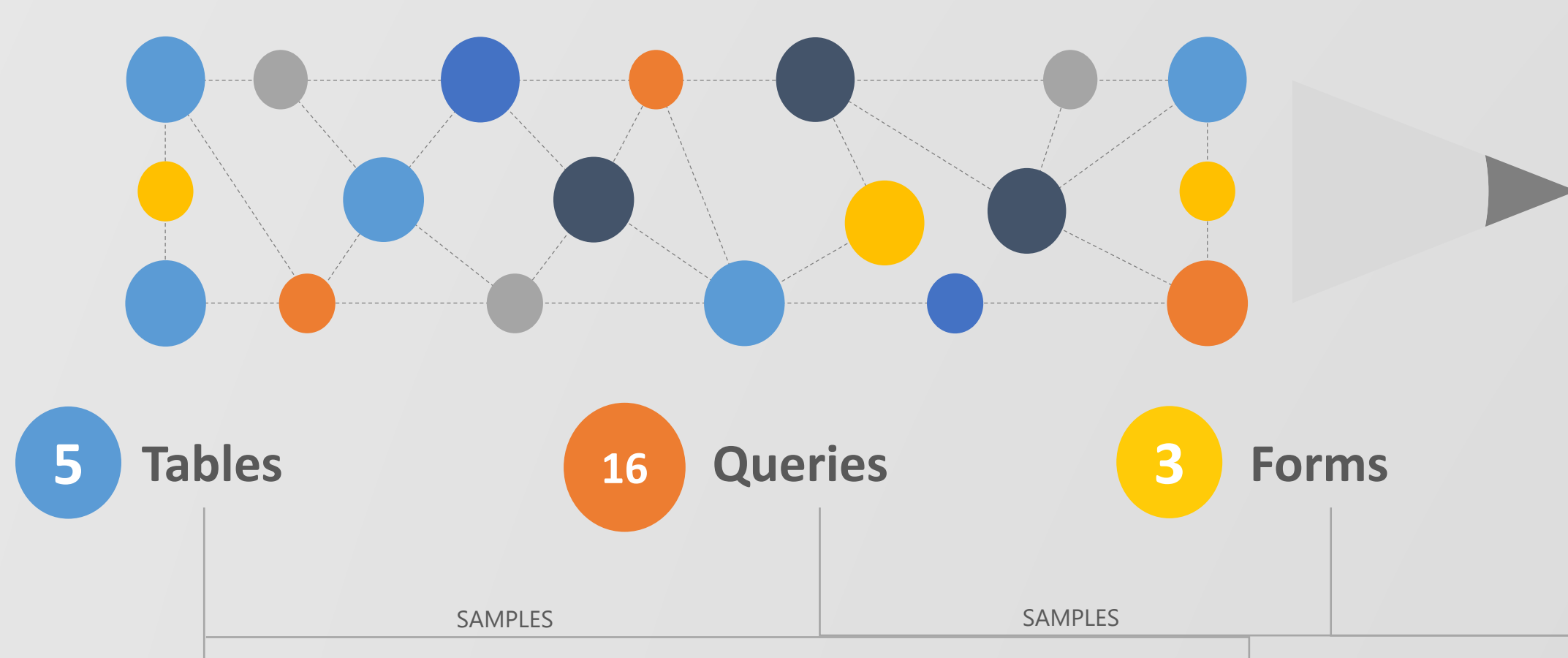

Home Page – Main User Interface
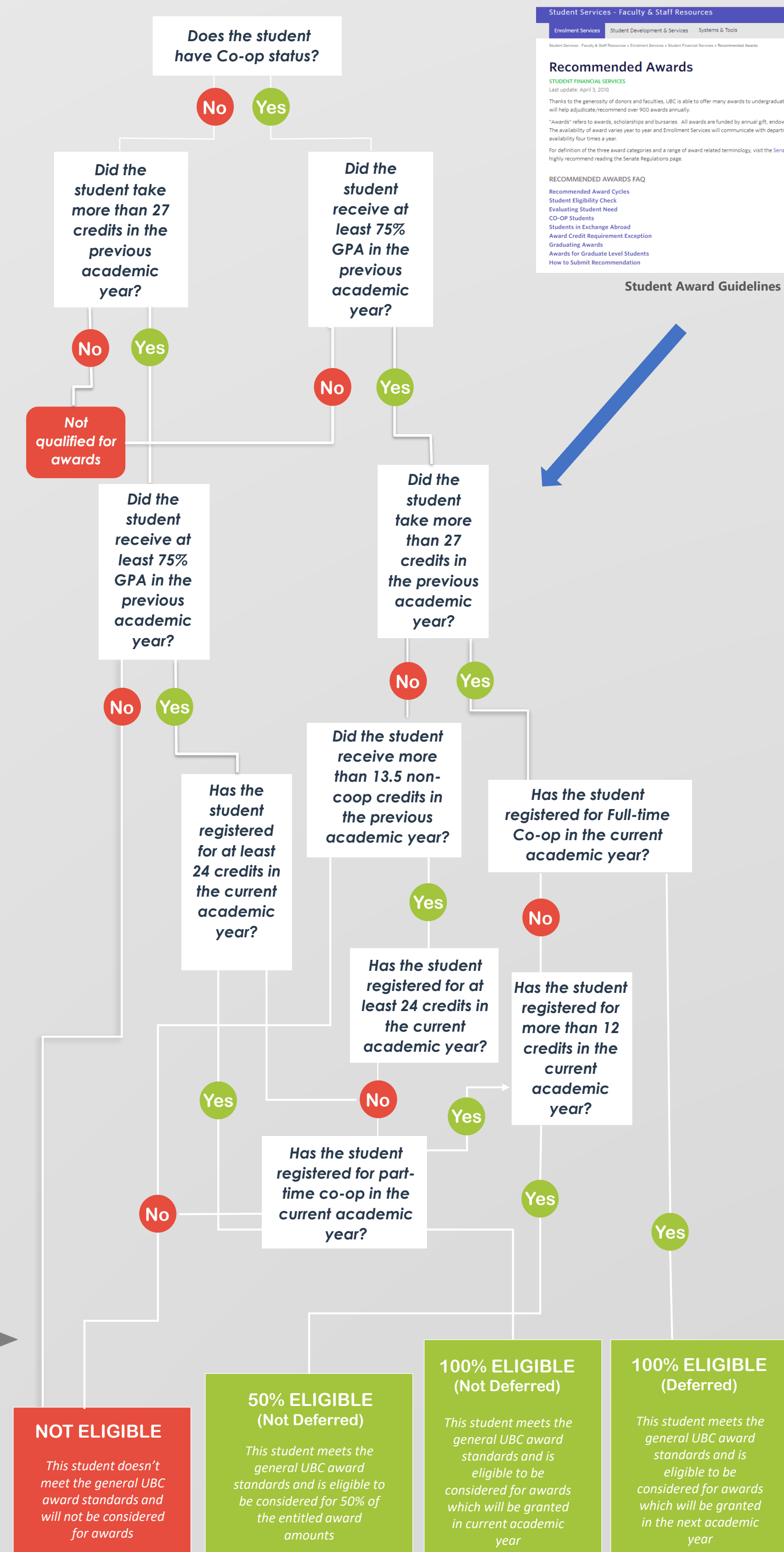
A. Why this project - Problem Statement

- **01** No automatic filter system available to assign awards
- **02** Time consuming with co-op data manually inputed
- **03** Challenging to analyze the award eligibility of co-op students
- **04** Challenging to analyze the award eligibility of exchange students
- **05** Hard to sync award selection decisions to the student groups
- **06** Not easy to share screening decisions with other award committee members
- **07** Data can't be flexibly implemented
- **08** Complicated repetitive procedures
- **09** Boring user interface

B. Database Design Workflow Overview

Retrieve Data
Students' data, including co-op status, GPA, and year level were retrieved from the central SISC system in the CSV format

Clean Data
Raw data in CSV version was initially analyzed and refurbished in Excel to avoid bad data

Create Database
Import CSV from Excel to Access and create multiple tables to house different datasets, including student personal info, academic info, and award list

Design Queries
Implemented various queries to link different tables and defined key parameters to be used to filter eligible award candidates

Run SQL & Macro
Used SQL and Macro to union different queries and tables, and implemented additional criteria to simplify the efforts of locating specific data entries

Interface & Share
Created a user interface in Access to expedite the procedure to select candidates for each award, and imported to SharePoint

C. Objects Implemented In This Access Project:

5 Tables | **16** Queries | **3** Forms

D. Switch Award Criteria to Flowchart
Query Design

Student Award Guidelines

E. Share Results
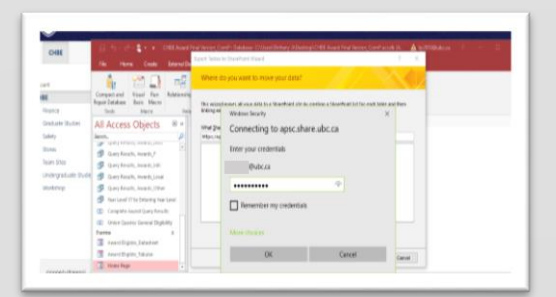
The final database can be linked to the CHBE SharePoint site so that other people within the team can access the data while the original database is still being used as the front end to generate tables, queries, forms and report.

F. Next Steps

The student names and student numbers appeared in this database were randomly generated due to privacy concerns. However, as the database being used for future undergraduate award selection and analysis, the Department will import genuine student information to this database. More importantly, the power of such Access database allows the historical data to be properly stored, and can be retrieved if needed. Also, with the templates built up in this capstone project, the future data import would be much easier and time-saving.

SAMPLES

Table: Award List, 25 records | Table: Academic Results, 428 records | Union Query: SQL | Final Form: Eligible Candidates for Review