Actl4001 CC24 SOA Competition Project Outline

We intend to submit for SOA competition, if we get into semi-finals then full marks for case report! And if not, then we did not lose anything.

Report writing tasks for everyone

- Need to proofread each other's work. For small chunks can edit directly since it's faster. For large chunks of text, can comment on that person's part first for further discussion before any action is taken

- We each write our own data limitations and assumptions when analysing the dataset

- We write the references and appendix for our own parts

Coding components/conventions for everyone

- Everyone's codes the part of their project that they will ultimately write in the report (see below). This includes ML/deep learning tools from Actl3142 and/or Actl4305. Each person monitors and evaluates their own generated result using Actuarial Control Cycle framework

- Consistency in coding styles makes it easier to read. Use snake case convention: Variable names are formatted with no spaces but underscores eg. variable_1, snake_case, glm_model

Version control

Our group will use GitHub to track code contributions including any additions, deletions, or changes. This is also used for the GitHub Landing page due in week 9.

Zi Qing (Nick) Ng (z5313321):

- Created groups and added members on Facebook Messenger and GitHub. Formed templates on main report (with appendix) and group project outline on Google docs
- Submit the deliverables on behalf of all group members and provide screenshot of submission timestamp at conclusion.
- First 4 dot points of Program Design

Zhi Rou (Crystal) Chong (z5348001):

- Exploratory Data Analysis (EDA) using ggplot2
- Research and external data collection. Includes evaluation and analysis
- Program design dot point 5 (short/long term timeline and justification)

Hasibul Alam (z5312919):

- All 3 dot points of pricings/costs

Yaxiao (Albert) Liu (z5371066):

- Risk and risk mitigation dot points 1 through and including 4 (sensitivity analysis)

Natalie Khalil

- Risk and Risk Mitigation dot points 5 and 6. These are the two below:

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- "Indicate the degree of certainty that the proposed program would have lowered mortality for the past 20 years. Provide justification for the degree of certainty selected."

  And

- • Indicate the degree of certainty that the value of benefits derived from policies sold with the proposed program will exceed the value of benefits derived from policies sold without the proposed program.