CS5346 S2-AY2023-24: Own Time Own Target(OTOT) Tasks

This document describes assignment - OTOT tasks and respective submission instructions. The last day of submission for all OTOT tasks (unless otherwise specified with the task information) is <mark>April 8th, Monday, 10pm.</mark>

<mark>No extensions will be granted.</mark>

Total Max marks - 30

Total available marks > 30. You can select any combination of tasks to submit a total of 30 marks worth tasks. See a summary of all tasks at Appendix-I

👉 **Your Queries:**
- Carefully read through the instructions provided.
- If you have any queries, please post them on Teams, in the respective OTOT channel, before submitting your task. Avoid making assumptions; ask for clarification instead.

👉 **Submission Format:**
- Pay attention to the submission instructions and format to avoid any deductions.
- Failure to follow the instructions may result in a deduction of 10% to 20% of the task marks.
- Examples of lapses include incomplete submissions or not following the file naming convention.

👉 **Submission Protocol:**
- Once uploaded to the Canvas folder, submissions should not be deleted or duplicated.
- Resubmissions or duplications are not permitted.
- For special requests, please contact tutor Anab (e0546093@u.nus.edu) with the subject line "[CS5346] OTOT Canvas submission".
- Teaching team may not accommodate marks related review requests if the submissions are made after 1 April. This is typically due to semester-end heavy marking load.

👉 **Data usage for Tasks:**
- Ensure datasets used for any task are not reused in other OTOT tasks.
- Data should be sourced from reputable sources to maintain integrity.

👉 **Task Deadlines:**
- Some tasks within this assignment have deadlines separate from the final submission date.
- Be mindful of these specific task deadlines to avoid any late submissions.

👉 **Task weight:**
- Not all tasks have equal weight in scoring maximum marks.
- Explore different combinations, with a total potential of 30 marks across various tasks.

Tasks A-D – Creating Visualizations

Task A1 and Task A2 –Visualization with D3

Max marks – 6 (3 marks per task)

Task: Create a visualization(at least three different charts) on your choice of dataset. Use D3 or Recharts (React + D3.js) to create a visualization on your choice of dataset.

Task B1 and Task B2 –Visualization with Tableau

Max marks – 6(3 marks per task)

Task: Create a visualization (at least three different charts) on your choice of dataset.
Use Tableau to create a visualization on your choice of dataset.

Task C – Visualization with Python/R/ Gephi/Processing/PowerBI

Max marks – 3 marks

Task: Create a visualization (at least three different charts) on your choice of dataset.

Use any of the following tools: Python/R/ Gephi/Processing/PowerBI.
If you wish to use any other visualization tool – seek approval by writing to teaching team/clarification channel. Avoid Excel.

Task D – VFSG using D3, Recharts or Tableau

Max marks – 5 marks

Task : The goal of this task is to use data visualization as a powerful tool to raise awareness, inspire action, and contribute to positive social change. By visualizing relevant data, aim to communicate complex social issues in a compelling way. Choose a social issue that resonates with you. It could be related to education, healthcare, the environment, poverty, or any other area where visualizing data can make a difference. Collect reliable data or find a reliable dataset(s) related to your chosen social issue. Ensure that the data is from a reputable source. Consider who your target audience is.

Create a visualization (at least three different charts).
Use D3 or Recharts (React + D3.js) or Tableau.
(optional) Post your work on Tableau Public with the hashtag #VizForSocialGood.

Submission instructions for Tasks A-D

1. Submit a PDF document as proof of completion with the following information:
    a. Student Name and Matriculation Number.
    b. A brief description of the dataset and purpose of visualization.
    c. Specifics of the visualization(s).
    d. A screenshot of the visualization(s) **and the link** (so that the TAs can view your work).

    Find a template for submission of tasks A-D in the Appendix-II.

2. File name: <Matriculation_Number>_<Task_Label>.pdf (e.g., If you attempted the viz using D3/Recharts, then your file name will be A0123456X_A1.pdf or A0123456X_A2.pdf if this is your second submission for D3/Recharts)
3. Folder name to submit on Canvas Assignments: OTOT_Task_<Label> ((e.g., If you attempted the task A1, your first viz using D3/Recharts, then your submission folder will be OTOT_Task_A1)

Marking of Tasks A-D would be based on:

*   Clarity and Effectiveness of Visualization
*   Explicitly stating and using a meaningful visual encoding.
*   Task complexity, e.g., multiple queries/visualizations include Interactivity/story-value/exploiting tool strengths in some specific ways.
*   For Task D-Your work will also be evaluated based on effectiveness in communicating the social issue.
*   Marks will be deducted if the requirements of submission instructions are not met.

Task E - Explore Viz Topics and Share.

Max marks – 5 marks (choose any <u>one</u> of the following two options)

In this task, you have two options:

E1– Presentation

An in-class presentation about any topic relevant to the field of Data Visualization

a. You will need to get pre-approval of the topic by <mark>10 March 2024 i.e., Week 7</mark>[**]
b. Duration: about 10-15 mins
c. <mark>Presentation will need to be scheduled** during lecture hrs in weeks 9-11 (i.e. 21 Mar, 28 Mar or 4 April)</mark>. If you wish to do it earlier than week 9, let the teaching team know and find a slot.

E1 Submission instructions

1. Submit your presentation file .pptx in Canvas one day before your actual presentation. The document should contain the following information:
   a. Student Name and Matriculation Number.
   b. Links of any visualization in the slides itself.
   c. Any other information you want to add e.g., a brief synopsis, and references or links you have followed
2. File format: <Matriculation_Number>_E.pptx (e.g., A0123456X_E.pptx)
3. Folder name to submit on Canvas Assignments: OTOT_Task_E

Marking would be based on

- Content. e.g., Relevance, Analysis, Critique, Referencing
- Presentation. e.g., Style, Organisation/ Video quality e.g., narration, timing, visual content, etc.
- Marks will be deducted if the requirements of submission instructions are not met.

E2 - Blog

Write and publish a technical blog post on any Data Viz related topics, patterns, concepts from within or outside the module scope. You can also write about a data viz or case study which you would like to share with others.

The topic should NOT overlap with any other OTOT task you have completed. A reference to a completed task is permissible.

Note that your blog post should not be too short, nor too long. A minimum of 500 words is expected.

Your post should be written on https://medium.com/ and your Medium profile should use your full name as per class records.

Do watch this video to get a good understanding on writing great technical blog posts:

https://www.youtube.com/watch?v=nrit1MkhCYI

Note: **You need to get your topic pre-approved by the teaching team before you start preparing the presentation or blog. Please send an email to tutor Anab (e0546093@u.nus.edu) with the subject line as "[CS5346] OTOT-E" .

E2 Submission instructions

1. Submit a PDF document as the proof of completion. Include the following information:
    a. Student name and Matriculation number.
    b. Link to your Medium blog post
2. File format: <Matriculation_Number>_E.pdf (e.g., A0123456X_E.pdf)
3. Folder name to submit on Canvas Assignments: OTOT_Task_E

Marking would be based on

- Clear, precise language used to explain the data viz topic, concept, principles, patterns etc.
- Content: data viz-related topic/principle/pattern/concept
    o Provide examples (hypothetical or real-life) of the discussed data viz, principle or concept
    o Proper references and citations made throughout the technical blog post
    o Ensure that proper references and citations made where required.
- Marks will be deducted if the requirements of submission instructions are not met.

Task F – WorkOutWednesday (WOW)

Max marks – 3 marks

Task

Create a Visualization for a Dataset posted at WorkOutWednesday. The dataset is typically released on Tuesdays/Wednesdays of the week.

Submission instructions

1. Submit a PDF document as the proof of completion. Include following information:
   a. Student Name and Matriculation Number.
   b. A short description of the problem (or challenge) and dataset.
   c. A short description of the visualization and its key elements.
   d. A screenshot of the visualization(s) **and the link** (so that the TAs can view your work).
   e. Dataset release date and submission date. Use the most recent dataset release.
2. File format: <Matriculation_Number>_F.pdf (e.g., A0123456X_F.pdf)
3. Folder name to submit on Canvas Assignments: OTOT_Task_F

Marking would be based on

- Proof of completion as per instructions on WOW post within 7 days of release of the dataset.
- Marks will be deducted if the requirements of submission instructions are not met.

Task G – Data Viz Competition

Max marks – 5 marks

Task

Take part in a Data Visualization competition. You can source for the competition yourself.

You can be in a team (2-3 students) or do individual work (max 3 competitions during the semester). Write to the Lecturer for information/approval before signing up for the competition.

Submission instructions

1. Submit a PDF document as the proof of completion. The document should contain the following information:
   a. All Student Name(s) and Matriculation Number(s) of members in the group.
   b. Link of competition entry or proof of participation/win

2. File format: <Matriculation_Number>_G.pdf (e.g., A0123456X_H.pdf)
3. Folder name to submit on Canvas Assignments: OTOT_Task_G
4. Note: Each team-member should submit an identical document in Canvas as Task_G submission.

Marking would be based on

- [2 Marks] (for each team member) for taking part in a data visualization competition.
- [3 Marks] (for each team member) for winning the competition.
- Marks will be deducted if the requirements of submission instructions are not met.

Task H – Create CS5346 Wrapped!

Max marks – 5 marks

Task

Dive into the rhythm of your Info Viz journey! Imagine your design experience as a chart-topping track, and it's time to create your very own Spotify-inspired Year-End Wrapped https://newsroom.spotify.com/2023-wrapped/

The goal is to let you reflect on your learning, celebrate your achievements, and showcase the highlights of your Information Visualiization design adventure. Think of this as a creative opportunity to share your story! Here are some ideas for you :

(i) Tracklist Design
Imagine your semester as a playlist, where each track represents a significant chapter in your story. Create a visually stunning tracklist with the following elements:

Track Title: The name of the topic or a memorable aspect of your Info Viz journey.
Album Cover: A visual representation of your overall experience.
Track Duration: The time spent on each aspect of the topic (lecture, assignment, project).
Genre: The vibe or theme that encapsulates your Info Viz journey.
Feel free to unleash your creativity, use images, icons, or memes that resonate with your visualization vibes!

(ii) Chart-Topper Analysis
Dive into the data of your Info Viz journey and compile the 'Chart-Topper' of your semester. Create visual representations (graphs, charts, or infographics) for:

Most Played Track: The topic or concept you engaged with the most.
Collaboration Hits: Highlight your most successful team collaborations.
Learning Peaks: Identify the moments where your learning curve skyrocketed.

Use colours, icons, and annotations to make your charts visually appealing. Remember, the more visually engaging, the better!

(iii)   Reflection & Future Hits
Write a reflective note that goes beyond the surface level. Answer questions like:
What surprised you the most during this Info Viz journey?
Which aspect challenged you, and how did you overcome it?
If your Info Viz journey were an upcoming album, what would be its theme?

Feel free to infuse your personality, humour, or even a dash of drama into your reflection. This is your moment to shine!

Submission instructions

Format: Create a visually appealing presentation (Canva, PowerPoint, Video etc.).

Submission: Upload a PDF document containing content of your work and/or a publicly accessible link in Canvas-Assignment-H Wrapped by the deadline Sat 20 Apr 2024, 5pm (Note this is a reflective piece to be completed by end of the course, therefore task H deadline is different than 8 April deadline of the OTOT assignment).

The document (PDF) should include:
- Your name and Matric number
- (optional section) If you wish to include any information about tool or the process you followed for creating the content.
- Content and/or Link of your submission

File Name: MatricNumber_H.pdf

Marking would be based on

- Coverage of Task points (i) – (iii) .
- Remember, the goal is not just to tick off boxes but to highlight your Info Viz journey in a way that is as unique as you are. Embrace the fun, the challenges, and the victories – after all, it is your InfoViz Wrapped, and there is no one else who could do it better than you! 🎉
- Marks will be deducted if the requirements of submission instructions are not met.

Task X – Early Submissions

Max marks – 3 marks

Task

Apart from attempting the above tasks, you can earn bonus marks by achieving the following:

- [1.5 Marks] for completing (submitting your tasks) at least a total of 12 marks from **Tasks A-D and F** by **2 Mar, Saturday, 5pm**
- [1.5 Marks] for completing (submitting your tasks) at least a total of 24 marks of **A-G tasks** by **31 Mar, Saturday, 5pm**

Note: If you already finished 12 marks of tasks at week 6 and receive 1.5 bonus marks, you can get the additional 1.5 marks by finishing tasks worth 12 more marks. The bonus marks are given on completing/submitting the tasks. It is not based on the marks you received when the tasks are graded.

Task Y – Tutor Choice

Max marks – 3 marks

Task

- Tutors and lecturers will be on lookout for 'good' efforts/submissions. Each time a tutor or lecturer chooses a work, the student would get 1-2 marks credited to the Canvas gradebook for Task Y.

Appendix-I

Summary of OTOT Tasks

Task	Max Marks	Important Dates/Notes
A1	3	Latest submission by - 8 April, 10pm Limited feedback or review request accommodations if the submission comes in after 1 April.
A2	3	
B1	3	
B2	3	
C	3	
D	5	
E (E1 or E2)	5	Pre-approval of the topic for E1 or E2 by 10 March 2024 i.e., Week 7 E1 presentations during lecture hrs in weeks 9-11 (i.e. 21 Mar, 28 Mar or 4 April).
F	3	WOW post should be made as per WOW instructions in the week of release of dataset typically within 7 days of release of the dataset.
G	5	Latest submission by - 8 April, 10pm
H	5	Latest submission by - 20 April, 5pm
X (no explicit submission)	3	Based on organised Submissions by 2 March, 5pm and 31 March, 5pm
Y (no explicit submission)	3	Based on Tutor selection

Appendix-II

Template for Tasks A-D

Follow the submission instructions of the respective tasks. The template below helps you oganise the content and serves as a reminder for key information to be included in the submissions. This should not be seen as a checklist to complete the task.

1. Dataset

Explain your dataset such as data origin, brief explanation on what information contained in the dataset and why you are interested in the dataset.
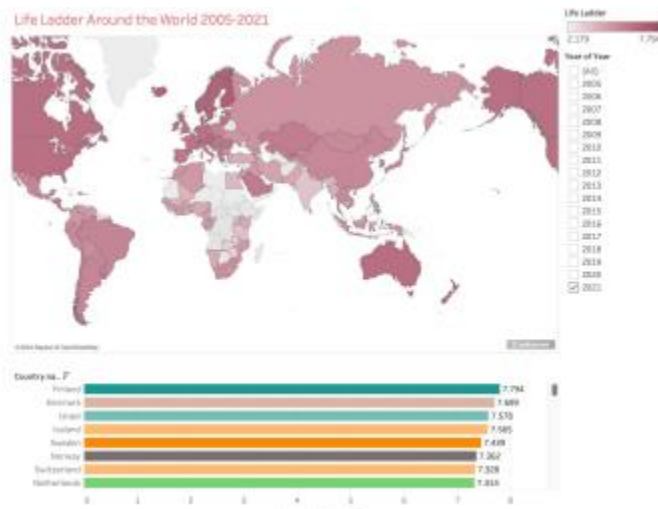
Explain each feature in your dataset in more detailed. For example, list of all features you are using, with the explanation, data types, etc.

2. Purpose of Visualization

Explain in more detail what's the purpose of your visualizations and what queries you are going to answers.

3. Visualization

Present all your visualizations

Explicitly state the visual encodings(aka data encodings)

Explain briefly your finding about the visualization. Connect the findings to answer your queries.