OECD Unemployment Rate Visualisation Using D3.js

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**1. Overview**

This week marks our final standup before the project submission. Our project, titled *Interactive Data Visualization of Unemployment Trends (2020–2024)*, focuses on presenting OECD unemployment data for Australia and the United States through a simple yet functional D3.js-based bar chart.

The goal was not to overcomplicate but to demonstrate clear, responsive visualization with interactive features that enhance the user's understanding of unemployment changes over five years. Our website is now live and includes all the required elements within scope.

**2. Work Completed Since the Last Standup**

Since Standup 3, the team has focused on wrapping up the technical and written components of the project. Key updates include:

**Final Interactivity**

* Completed the tooltip feature, displaying the unemployment rate and country on hover.
* Adjusted colour contrast on hover for better accessibility.
* Ensured tooltip behaviour is consistent on both desktop and mobile browsers.

**Data Finalization**

* Parsed and validated the OECD dataset one last time for integrity.
* Converted year labels and numeric values into consistent formats usable by D3.js.

**Responsive Layout Polishing**

* Adjusted margins, axis labels, and font sizes for clarity on different screen sizes.
* Conducted cross-browser testing (Chrome, Safari, Firefox) and ensured compatibility.

**Process Book Writing**

* Completed first drafts of the **Methodology** and **Challenges** sections.
* Added visuals and screenshots to the documentation to support descriptions.
* Aligned our contributions to the relevant Unit Learning Outcomes.

**Internal Review**

* Conducted a final round of internal peer testing.
* Received positive feedback on usability and clarity.
* Minor bugs and spacing issues were fixed accordingly.

**3. Task Distribution & Individual Effort**

Our team continued to share work fairly based on each member’s strengths. Below is an updated summary of contributions:

| **Task** | **Team Member** | **Hours** | **Contribution %** |
| --- | --- | --- | --- |
| Dataset cleaning & validation | Kim | 3 hrs | 20% |
| Bar chart coding (D3.js) | Both | 3 hrs | 25% |
| Tooltip implementation | Kim | 2 hrs | 15% |
| Styling and layout fixes | Aung | 2 hrs | 10% |
| Report (3B – Methodology/Challenges) | Both | 2 hrs | 10% |
| Testing and feedback processing | Aung | 2 hrs | 10% |
| Coordination & documentation review | Both | 1 hr | 10% |
| **Total** | — | **15 hrs** | **100%** |

**4. Challenges and Obstacles**

Even with most of the core tasks completed, we encountered a few final-week challenges:

**Time Pressure**

As expected in a final project week, time management was difficult. Several team members had concurrent deadlines for other units, reducing availability for collaboration.

**Interactivity Bugs**

Some unexpected behaviour with the tooltip on smaller screens required extra testing and fine-tuning. We also had to ensure it didn’t break layout spacing or overlap labels.

**D3 Scaling Issues**

Getting the axis to scale dynamically when window size changes was slightly tricky. We had to revise our margin and view Box setup several times.

Despite these challenges, our commitment to a simple and functional implementation kept us on track.

**5. Remaining Tasks Before Submission**

We're in the final stretch and only a few tasks remain:

* Final proofread and polish of the **Project Process Book (3B)**.
* Add citations for any external code snippets or sources used.
* Upload final files to the **Mercury server** and verify that the website is fully functional.
* Submit all documents via Canvas before the deadline.

**6. Teamwork & Communication**

Team communication has remained consistent and effective. We’ve used the following tools to coordinate:

* **GitHub** for version control and merging code changes.
* **Microsoft 365** for collaborative report writing and notes.
* **Discord chat** for daily check-ins and status updates.

No major conflicts or misunderstandings occurred. Tasks were assigned clearly, and members stepped in when someone was overloaded.

**7. Summary of Website Implementation**

Our final website meets the basic but essential requirements of the capstone brief:

* **Dataset:** OECD unemployment rates for AU and US (2020–2024).
* **Tool:** D3.js for bar chart rendering and interactivity.
* **Design:** Simple layout with responsive scaling, axis labels, tooltips, and readable colour contrast.
* **User Experience:** Users can hover over a bar to view detailed values without additional clicks or pages.
* **Accessibility:** Font size, hover feedback, and layout responsiveness were reviewed.
* **Documentation:** All development decisions and methodology are reflected in the 3B report.

Although our visualization is simple in scope, we’ve focused on **clarity, usability, and accuracy**—ensuring a working solution that aligns with the learning outcomes.

**8. Reflection**

This final week reinforced the importance of **realistic scoping**, **early testing**, and **clear internal communication**.

Rather than overcommitting to advanced features, we chose to execute a manageable solution well. Our final product showcases a clean design and well-functioning interactivity. While not highly complex, the project helped us build confidence in using D3.js, working with real-world data, and applying development workflows.

We believe our site and documentation meet the requirements of the unit and look forward to presenting the final result.