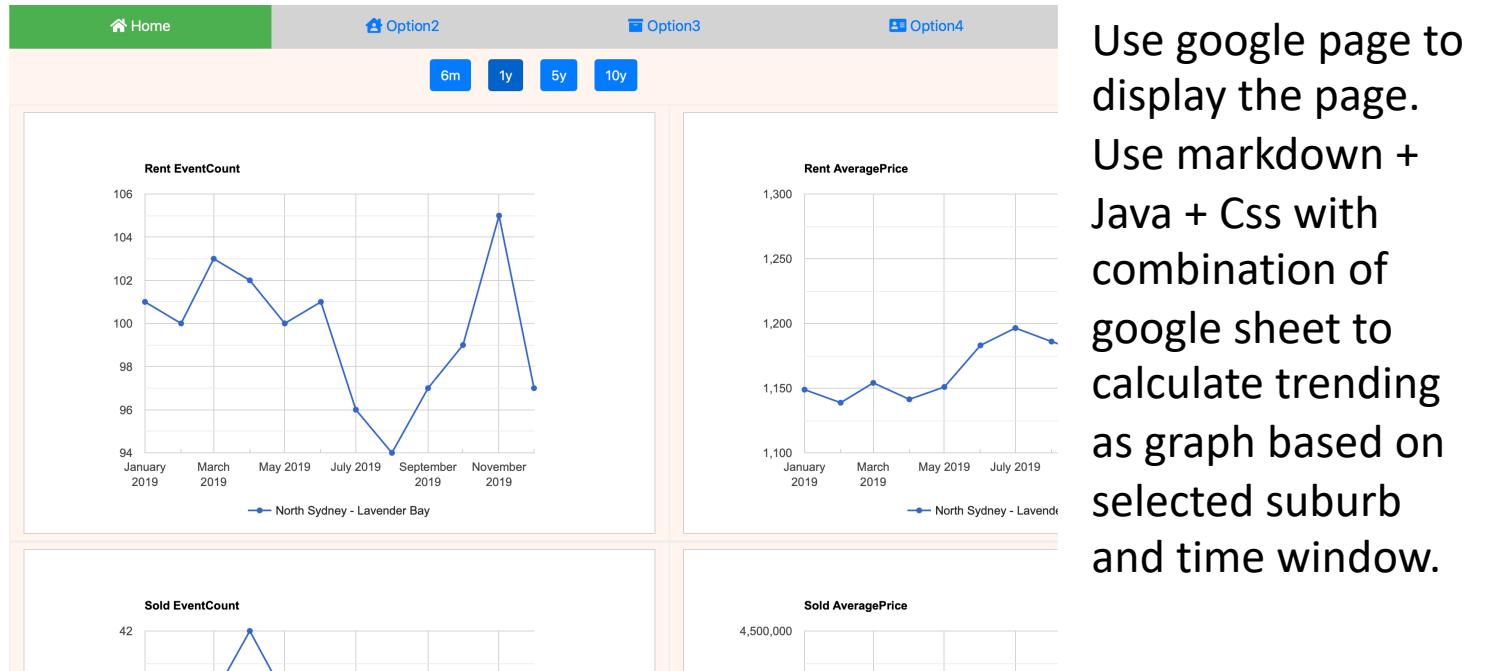


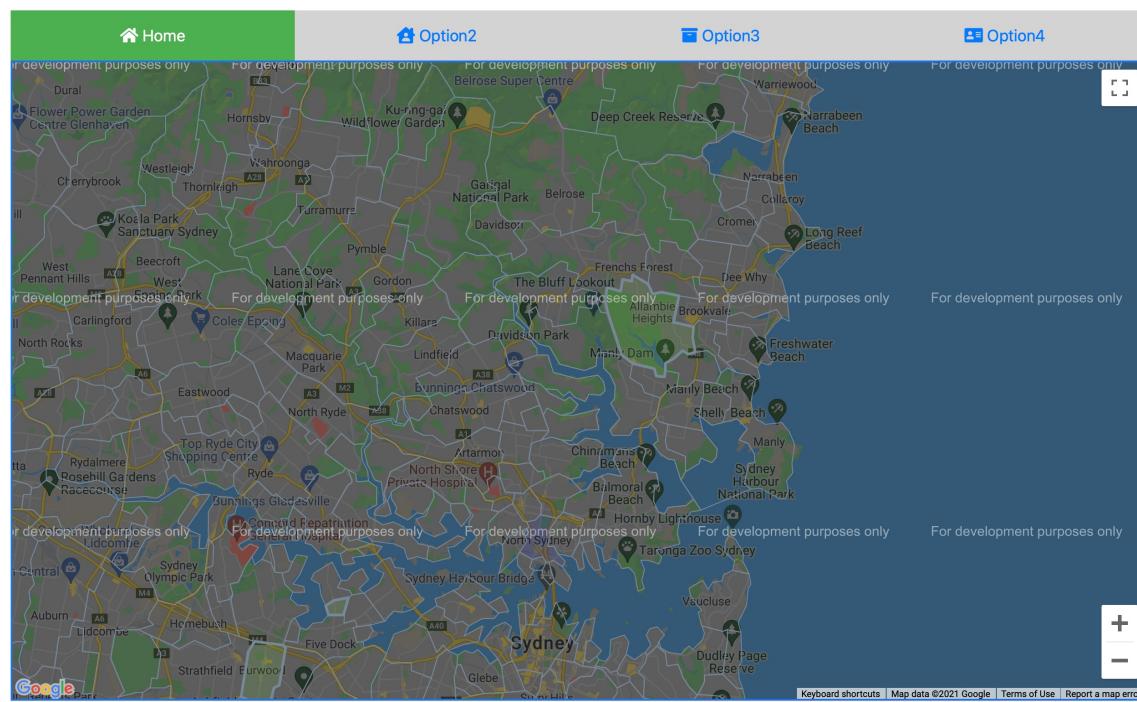
My scholarship program

During the period of program, my responsibility is to design and build a website that can be used to present the SA2 level historical data set for housing price trending of different suburbs in Australia. This project was aimed to design a website that can help people who wants to buy a house or help investor or estate agent to better do their researches on the housing price these years.

All processes involve preliminary design of the website, construction of the data structure, as well as the client and server side of the website are under the supervision of the Dr Wei Zhang who is an honorary lecture at department of computing in University of Adelaide and supervisor of several research programs.



Use of Google map API and geopack, allow selection of different suburb of for all state in Australia. Provide color indication and tooltip for exsistence of data

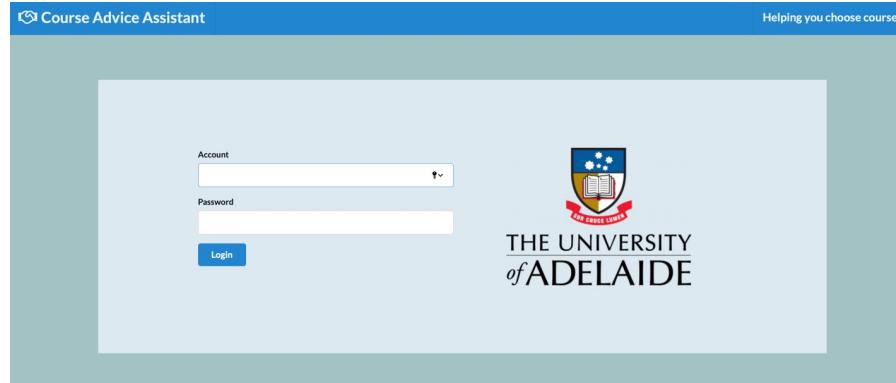


Ruby group project on Course AdviceAsistent

Link: (<https://esas-2-group-4-2021.herokuapp.com/>)

Student view: account: a1781326 password: adelaideuni

Staff view: account: a1234567 password: adelaideuni



Allow user to login as student or staff and use different sets of function.

Student can get advice for their course schedule and advice from staff. They can also arrange a appointment with the staff.

Staff can view student's course selection and provide advice. They can also view appointment requested by students.

Student view

Student Profile

Student ID:	a1781326
Name:	Zhao Lin
Residency:	International
Qualification:	Undergraduate
Program:	BENG
Plan:	BEHSCFTS1
Year:	1
Expected completion:	2024 Semester 2
English Exam:	IELTS
English Score:	7.0

Advice Details

Advice ID	Date	Note
1035460045	2021-10-28	NA

Please find your personalised advice for "Year 1, Semester 1" below.

If you have any further questions, please book an appointment with a Course Advisor from the last section.

Core Course(s)

Course ID	Course Name	Prerequisite	Corequisite	Assumed Knowledge	Course Description	Restriction
108277	ELEC ENG 1100 Analog Electronics	COMP SCI 1103			The course develops a basic understanding of the fundamentals and principles of analog circuits and electronic devices for communication and electronic engineering. It covers the key electrical variables and the application of Ohm's law, Kirchhoff's laws and the superposition principle. The analysis of RLC circuit using resonance, the principles, construction, analysis and modelling of basic semi-conductor diodes, transistors and operational amplifiers and op-amps. It includes a communication and professional skills development component.	
107808	ENG 1001 Introduction to Engineering				This course introduces students to the range of engineering disciplines and the engineering process. It covers the basic concepts of engineering and other issues associated with the practice of engineering. This introduction is made through a mix of lectures, group-based activities, site visits, and presentations. The aim is to develop the skills of successful professional engineers in the ability to communicate effectively. As part of a	

Staff view

Current Appointments

Advice ID	Date	Student	Term	Detail
1635463890	2021-10-28	Prateek Arora (a1757552)	Year 1, Semester 1	<button>View details</button>
1635462982	2021-10-28	Tushar Shirose (a1770245)	Year 2, Semester 2	<button>View details</button>
1635462895	2021-10-28	Tushar Shirose (a1770245)	Year 2, Semester 1	<button>View details</button>
1635460045	2021-10-28	Zhao Lin (a1781326)	Year 1, Semester 1	<button>View details</button>
1635050471	2021-10-24	Prateek Arora (a1757552)	Year 1, Summer School	<button>View details</button>
1635050392	2021-10-24	Prateek Arora (a1757552)	Year 1, Semester 1	<button>View details</button>
1634619273	2021-10-19	Prateek Arora (a1757552)	Year 1, Semester 2	<button>View details</button>

Advice Details

Advice ID	Date	Name	Residency	Degree	Current year	Expected Completion	English Exam	English Score
1635463890	2021-10-28	Prateek Arora (a1757552)	International	BEHSCFTS1	2	2024 Semester 2		

My note to student:
NA

This advice given below was generated for Year 1, Semester 1 on 2021-10-28.

Core Course(s)

Course ID	Course Name	Prerequisite	Corequisite	Assumed Knowledge	Course Description	Restriction	Enrolment
108277	ELEC ENG 1100 Analog Electronics	COMP SCI 1103			The course develops a basic understanding of the fundamentals and principles of analog circuits and electronic devices for communication and electronic engineering. It covers the key electrical variables and the application of Ohm's law, Kirchhoff's laws and the superposition principle. The analysis of RLC circuit using resonance, the principles, construction, analysis and modelling of basic semi-conductor diodes, transistors and operational amplifiers and op-amps. It includes a communication and professional skills development component.		Yes

Ruby group project Senate Voting system

Link: <https://group07-21-s1-esas.herokuapp.com/>



Allow voting by filling the form

Voter view:

New Voter

Name:

Gender: Male Female

Title: Mr Mrs Ms Dr

Phonenumber:

Citizennumber:

Address:

Date of birth: 2022-03-13

Create Voter

< Back

Welcome to vote page!

You may vote in one of two ways Either:

Above the line:

By numbering at most 6 of these boxes in the order of your choice (with number 1 as your first choice)

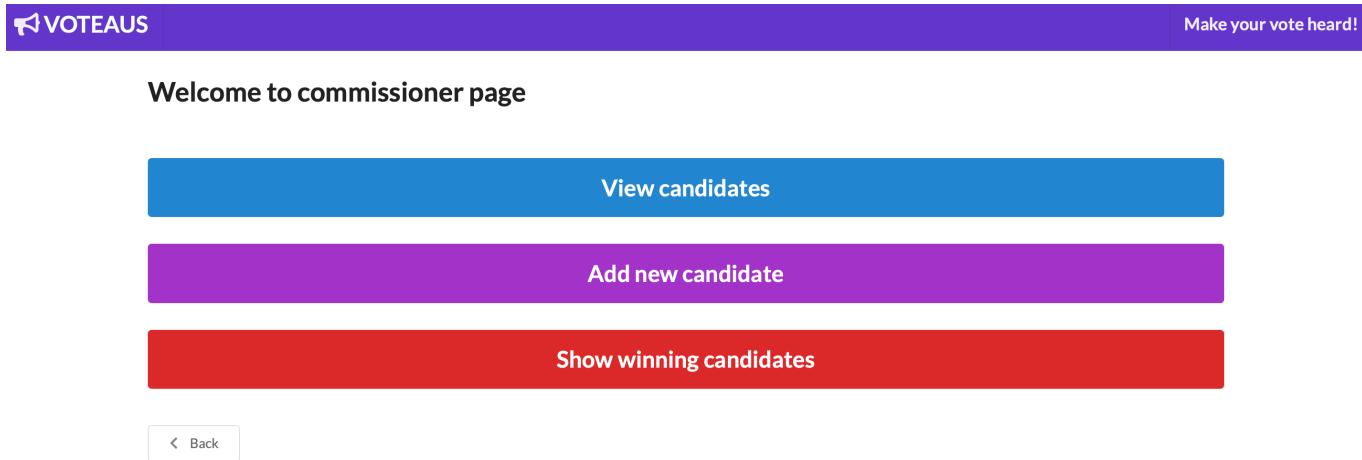
PartyName	Number
Labour	<input type="text"/>
Liberal	<input type="text"/>
The Greens	<input type="text"/>
adelaide	<input type="text"/>

Save

Or:

Below the line:

Commissioner View:
Acc: test Pass: secret



Display result



Group project on fixing issue of open-source project: JabRef

Pull Request [#8762](#) on JabRef - "Fix for issue 6601: Right click menu for main table header" Link: <https://github.com/JabRef/jabref/pull/8762>

Main table with different columns and content of right click context menu

JabRef_test.bib

Entrytype	Title	Author/Editor	Journal/Booktitle
Article	Position paper: Provenance data visualisation for neuroimaging a...	Arshad et al.	arXiv preprint ar...
Article	Data continuity and traceability in complex manufacturing syste...	Kuhn and Franke	International Jou...

Groups
Entrytype
Title
Author/Editor
Journal/Booktitle
Rank (Special)
Read status (Special)

After clicking 'Title' in the right click context menu

JabRef_test.bib

Entrytype	Author/Editor	Journal/Booktitle	★	○	■
Article	Arshad et al.	arXiv preprint ar...			
Article	Kuhn and Franke	International Jou...			

Created a context menu where the user can remove columns from the main table and go to preferences and changes are reflected in JabRef Preferences

This change is updated in the preference window for column

Entry table

Columns

- Name
- Title
- Groups
- Entrytype (Internal)
- Author/editor (Custom)
- Journal/booktitle (Custom)
- Rank (Special)
- Read status (Special)
- Priority (Special)

Format of author and editor names

Order

- Natbib style
- Show names unchanged
- Show 'Firstname Lastname'
- Show 'Lastname,Firstname'

Abbreviations

- Do not abbreviate names
- Abbreviate names
- Show last names only

Cancel Save

Before clicking on 'Title'

Entry table

Columns

- Name
- Groups
- Entrytype (Internal)
- Author/editor (Custom)
- Journal/booktitle (Custom)
- Rank (Special)
- Read status (Special)
- Priority (Special)

Format of author and editor names

Order

- Natbib style
- Show names unchanged
- Show 'Firstname Lastname'
- Show 'Lastname,Firstname'

Abbreviations

- Do not abbreviate names
- Abbreviate names
- Show last names only

Cancel Save

After clicking on 'Title'

Honours Project on visualiser for the items that are tracked by the blockchain (Semester 1 prototype)

Link: <https://github.com/lhmtrie/g5-serp2022>

Show item relations as nodes and edges, and able to filter by properties, such as name or date

Main interface

Data Visualiser

The screenshot shows the main interface of the Data Visualiser. At the top, there is a search bar labeled "Item name: Search its neighbor". Below it, there are several input fields: "Status of the selected item:", "Date of selected status:", "Sensor: Search by this sensor", "Actor: Search by this actor", and "Location: Search by this location". A large button labeled "Data map" is centered. At the bottom, there is another search bar labeled "Search node by Item name" with placeholder text "Enter some text eg: Oil Batch1." and a button "Fetch Scenario1 Data from Mongo".

This screenshot shows a different view of the Data Visualiser. It displays a data map with nodes representing items like "Oil Batch1", "Oil Batch1 transported", "Oil Batch1 packaged", and "Oil Batch1 shipped". Edges connect these nodes, showing the flow of the item. The interface includes a search bar at the top and various status and sensor information fields.

This screenshot shows a detailed view of an item's status. It includes fields for "Item name: Olives Batch1", "Status of the selected item: harvested", "Date of selected status: Mon May 23 2022 18:03:29 GMT+0930 (Australian Central Standard Time)", "Sensor: Farmer A", "Actor: Farmer A", and "Location: Farm A". Below this, a "Data map" shows a process flow: Olives Batch1 farmed → Olives Batch1 harvested → Olives Batch1 olive_transported → Olives Batch1 transformed → Olives Batch1 shipped. There is also a search bar for "Search node by Item name" and buttons for "Fetch Scenario1 Data by ID", "Fetch Scenario2 Data by ID", and "Fetch Scenario3 Data by ID".

Click node and edge can show different information about selected node or edge

Video :

https://drive.google.com/file/d/1SnyoRGlkW3B56P_JB20v0QaSci_GgZTt/view?usp=sharing

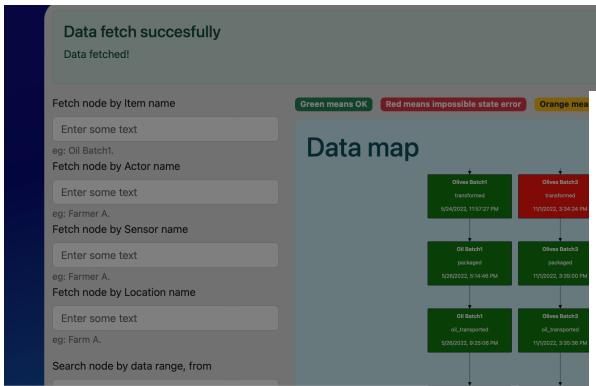
This screenshot shows a complex data map with many nodes and edges, indicating a more detailed tracking scenario. Nodes include various stages of processing and transportation for multiple batches. The interface includes a search bar for "Search node by Item name" and buttons for "Fetch Scenario1 Data by ID", "Fetch Scenario2 Data by ID", and "Fetch Scenario3 Data by ID".

Error detection and markd by different colours

Honours Project on visualiser for the items that are tracked by the blockchain (Semester 2 Progress)

Link: <https://github.com/lhmtriet/g5-serp2022>

Main interface, click edge shows transaction details



```
From Maker A to Maker A
From: Olives Batch1
To: Oil Batch1
From transaction: 0x773f226300061c5c95b3d8de11b7fc52b02085ac09bc4844a5fd075e15bfae
To transaction: 0xb6b789c006995e625713963d427d0f093bed1fbdc6c1690d1c884eb21633ef7
Action: packaged
Actor: Maker A
Sensor: Maker A
From location: Factory A
```

```
==== UPDATING DATABASE ====
Mongose is connected!!
==== UPDATING CONTRACT 0x7179f107ad96166B199b8d0C1e10E7593e0d9Cc4 generic ====
==== UPDATING CONTRACT 0xa7a7ad55D252C3eE7164c8Ba06Ddc5eDF27F4F88 generic ====
==== UPDATING CONTRACT 0xAdeA89Dc9Eec0eb155AEe03178aaE470A0A8545d0 payload ====
===== NOTICE =====
Request-Rate Exceeded (this message will not be repeated)
```

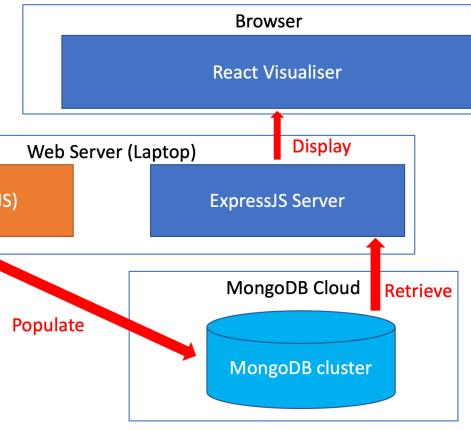
The default API keys for each service are provided as a highly-throttled, community resource for low-traffic projects and early prototyping.

While your application will continue to function, we highly recommended signing up for your own API keys to improve performance, increase your request rate/limit and enable other perks, such as metrics and advanced APIs.

For more details: <https://docs.ethers.io/api-keys/>

```
[{"id": 0, "object": "Olives Batch1", "timestamp": 1653291443, "sensor": "Farmer A", "payload": {"action": "farmed", "actor": "Farmer A", "location": "Farm A"}, {"id": 1, "object": "Olives Batch1", "timestamp": 1653294809, "sensor": "Farmer A", "payload": {"action": "harvested", "actor": "Farmer A", "location": "Farm A"}, {"id": 2, "object": "Olives Batch1", "timestamp": 1653301417, "sensor": "Courier A", "payload": {"action": "olive_transformed", "actor": "Courier A", "location": "Farm A"}, {"id": 3, "object": "Olives Batch1", "timestamp": 1653402447, "sensor": "Maker A", "payload": {"action": "transformed", "subject": "Oil Batch1", "actor": "Maker A", "location": "Factory A"}, {"id": 4, "object": "Oil Batch1", "timestamp": 165351086, "sensor": "Maker A", "payload": {"action": "packaged", "actor": "Maker A", "location": "Factory A"}, {"id": 5, "object": "Oil Batch1", "timestamp": 1653566106, "sensor": "Courier B", "payload": {"action": "oil_transformed", "actor": "Courier B", "location": "Factory A"}, {"id": 6, "object": "Oil Batch1", "timestamp": 1653574099, "sensor": "Seller A", "payload": {"action": "retailed", "actor": "Seller A", "location": "Shop A"}}]
Database already contains record with ID: 0
Database already contains record with ID: 1
Database already contains record with ID: 2
Database already contains record with ID: 3
Database already contains record with ID: 4
Database already contains record with ID: 5
Database already contains record with ID: 6
```

Improved query speed for cloud mongoose database



Overall architecture

Adapters for ethereum blockchain query, data fetching and data base update in time interval

The screenshot shows the Data map interface. It features a grid of items with status indicators: green means OK, red means impossible state error, orange means duplication error, and blue means time stamp error. The interface includes search fields for 'Item name', 'Sensor', 'Location', and 'Actor'. Below the grid, there are sections for 'Status of the selected item' and 'Actor'.

Improved Intuitive search and filter features

The screenshot shows the improved search and filter interface. It features a grid of items with status indicators (green, red, orange, blue) and search/filter fields for 'Item name', 'Sensor', 'Location', and 'Date of selected status'. Below the grid, there are sections for 'Status of the selected item' and 'Location'.