

Information Package

DATATHON

2025

Introduction to SUDATA

Sydney University Data Society (SUDATA) was founded in 2020 to serve as the go-to community for students interested in data science. Now with 1200+ members, we are (according to the USU) the third largest society in sign-ups in 2023.

Our mission is to empower like-minded students who are passionate about data science and who seek to be part of a vibrant community. We offer resources to support your interests in data science and to provide a welcoming environment for building lasting friendships. We are committed to fostering diverse networks for our students by connecting you to valuable industry opportunities and providing a platform to widen your network.

Members of SUDATA come from various academic backgrounds, ranging from engineering to the arts. Our goal is to bring students together through a shared passion, and to create a friendly atmosphere where everyone can share knowledge, learn, and build friendships.

Get the latest news from us:

Become a member: <https://usu.edu.au/clubs/sydney-uni-data-society/>

Facebook: <https://www.facebook.com/usyd.sudata>

Instagram: <https://www.instagram.com/usyd.sudata>

Discord: <https://discord.gg/csRnUsaEbM>

Website: <https://sudata.org/>

Enquiries: sydney.uni.data.society@gmail.com



Introduction to SUBAA

Sydney University Business Analytics Association (SUBAA) is the official society for the Business Analytics discipline at the University of Sydney. We aim to spark student interest in the major and industry, working with the BA (QBUS) faculty to enhance the learning experience for our 900+ members.

Our events focus on enriching members' professional and social experiences, offering coding workshops and talks by industry experts in Business Analytics. At our annual Networking Cocktail Night, coming up on the 16th of October (stay tuned for the announcements!), professionals share insights and advice on real-world applications of Business Analytics. It's a great opportunity for students to connect and learn from diverse perspectives. SUBAA offers free membership, which includes access to events, e-newsletters, career updates, and networking opportunities.

Don't miss our flagship Networking Cocktail Night, skill workshops, weekly socials, and Welcome Drinks!

Get the latest news from us: <https://linktr.ee/usydbusinessanalytics> OR subaa.org



SCHEDULE

WEDNESDAY, 1ST OCTOBER

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|---------|----------------------|
| 9:30AM | Registrations Open |
| 10:00AM | Opening Ceremony |
| 10:30AM | Team Formation Close |
| 10:45AM | Technical Workshop |
| 12:30PM | Lunch |

THURSDAY, 2ND OCTOBER

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|----------|---------------------------|
| 9:30AM | Welcome Back |
| 10:00 AM | Presentation Workshop |
| 12:00PM | Final Submissions Due |
| 12-2PM | Preliminary Judging |
| 2:00PM | Final Presentations |
| 4:00PM | Awards & Closing Ceremony |

KEY DETAILS

LOCATION

- The DATATHON will be hosted at Level 3 of the Peter Nicol Russell Building (PNR).
- The Opening and Closing Ceremonies will be held at PNR Lecture Theatre 304.
- Lunch will be held at 315 and 316 PNR Learning Studio.
- Workshops will be held at PNR Lecture Theatre 304.
- Mentoring session will be held at PNR Learning Studio 316.

SIGN IN

- Please sign in at outside the PNR Lecture Theatre 302 at 9:30am.
- Use the link below to join the [DATATHON Discord channel](#), for announcements, help and information over the event.



SUBMISSIONS

- There will be a preliminary judging stage to select teams for final judging
- You are requested to submit a 5 minute video presentation in the preliminary round.
- In the final around, you are allowed a 10 minute presentation followed by a 5 minute Q&A from the judges.
- Submit your slide deck and any code used to generate figures into your allocated Google Drive folder with the correct team number by 12:00pm Thursday 2nd October. No late submissions will be accepted.

PEP HOURS

- To receive your PEP hours, you must fill in the PEP hours form, which will be available at the end of the Award Ceremony. You must physically deliver your presentation to be eligible to claim the PEP hours.

DETAILS

BACKGROUND INFORMATION

GRB Co., a mid-sized firm in the consumer goods sector, has been facing a steady decline in revenue over the past three years. Despite maintaining strong demand in certain markets, rising operational costs and inefficiencies across its logistics and distribution networks have eroded profitability.

To better understand the root causes, GRB Co. engaged an external consulting firm. The consultants' preliminary analysis revealed that the company's challenges are primarily rooted in its supply chain management practices. Issues identified include delays in shipment scheduling, misalignment between supply and demand forecasts, and suboptimal allocation of logistics resources. These inefficiencies have led to increased delivery costs, missed deadlines, and strained relationships with key clients.

Given the strategic importance of the supply chain to GRB Co.'s competitiveness, the management team is seeking data-driven solutions to optimise operations. The company has provided historical shipment, pricing, and logistics data for analysis. By leveraging advanced forecasting, optimisation, and modelling techniques, GRB Co. aims to identify actionable strategies that reduce costs, enhance efficiency, and restore revenue growth.

YOUR TASK

As a data consultant, your task is to analyse the provided dataset

to uncover key inefficiencies, and recommend actionable to reduce costs and improve logistics efficiency while maintaining service reliability.

DATASET AND RESOURCES

All the information and metadata can be found at this google drive link:

<https://drive.google.com/drive/folders/1kKnk96XoFpput2i6y94qCaMEXcwrK-cJ?usp=sharing>

FILE ORGANISATION

```
dataset/
└── dynamic_supply_chain_logistic
    ├── dynamic_supply_chain_logistic.csv
    └── dynamic_supply_chain_logistic_metadata.pdf/
```



SUPPLY CHAIN LOGISTIC DATA

Description: Southern California logistics & supply-chain operations (transport, WMS, routing, real-time monitoring); hourly; trucks, drones, rail; anonymized.

Format: csv

Keys: as described in supply_chain_shipment_metadata.pdf (plus targets)

Dataset Time Scope: Declared Jan 2021–Jan 2024; auto-detected 2021-01-01 to 2024-08-29.

License: CC0 (Public Domain)

WORKSHOPS

Technical

Wednesday 10:45am - 11:45am



Sam Kim

Presentation

Thursday 10:00am - 11:00am



James Hu

Location: J02.03.302 PNR Lecture Theatre (1) 304 (Farrell)

MARKING CRITERIA

Criteria	Considerations	Marks
Business Insight		
Problem Statement	• Clearly identifies the problem, context, and key drivers in supply chain management.	10
Relevance of Insights	• Recommendations are realistic, actionable, and directly address the problem	15
Business Impact	• Demonstrates strong awareness of real-world implications; shows measurable potential benefits.	15
Clarity of Communication	• Storyline is compelling, concise, and well-structured; insights flow logically and persuasively.	10
Technical Rigour		
Model Selection & Justification	• Chosen models are highly appropriate for the problem, with strong justification and awareness of assumptions/limitations.	10
Implementation & Execution	• Models are implemented correctly, with sound parameterisation and optimisation; code/workflow is well-structured and reproducible.	10
Validation & Robustness	• Results are rigorously validated (e.g., train-test splits, cross-validation, sensitivity/scenario analysis); uncertainty well-quantified.	15
Analytical Depth & Interpretation	• Analysis goes beyond surface-level modelling; demonstrates critical interpretation of results and alignment with the business context.	10
Q&A	• Responds to judge questions with clarity, and technical accuracy; demonstrates deep understanding and flexibility in reasoning.	5
Total		100

RULES AND EXPECTATIONS

01

Punctuality & Preparation

- All team members must attend the Opening Ceremony at 10:00 AM on Wednesday 1st October.
 - In person attendance at both the Opening Ceremony and Closing Ceremony is required to claim automatic PEP hours.
 - Check discord regularly for announcements and updates.
-

02

Team Composition and Behaviour

- Teams must consist of 1-5 people.
 - Respect everyone's ideas, value everyone's contributions.
 - Stay open to new ways to approach the problem.
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03

Academic Integrity

- Clearly reference code and other material used that is not your own, in a comment above where it is used.
 - Reference any datasets, figures or resources used as a footnote on the slides, or in a appendix slide at the end of your presentation.
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04

Submissions

- All submissions must be made by 12pm Thursday 2nd October
- Your submission must include your video presentation, slides, and any code used to generate any figures used in your slide. For example, if your slide contains results from your model, the code for your model should be submitted as well.
- You may not alter your slides after the submission time
- Teams who are not present for heats and judging will be disqualified.

PRIZES

FIRST PLACE

\$200 Cash Prize
+ Secret Prize
(Valued at \$250)

SECOND PLACE

\$150 Cash Prize
+ Secret Prize
(Valued at \$250)

THIRD PLACE

\$150 Cash Prize
+ Secret Prize
(Valued at \$250)

CONTACT DETAILS

Email: sydney.uni.data.society@gmail.com