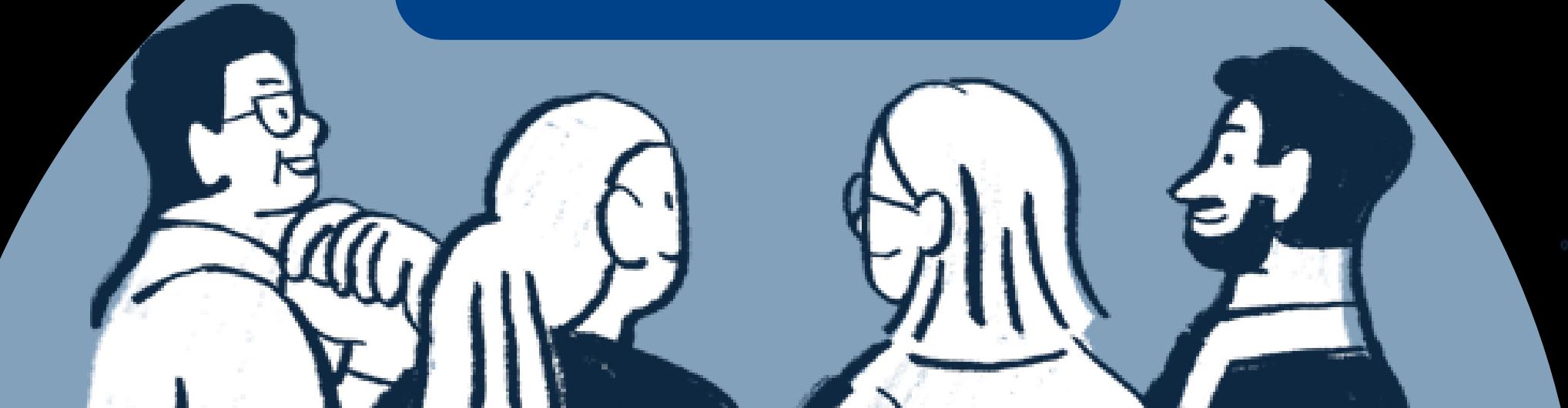




Pre-Hackathon Registration

«CL staff only»



PRE-HACKATHON TRAINING & BRIEFING

Agenda



08:30 - 09:15
09:15 – 09:45
09:45 - 10:15
10:15 - 12:00
12:00 – 13:30
13:45 – 14:00
14:00 - 15:00
15:00 – 18:00

Registration and Welcoming

Mentor Briefing & Training
by CLI Data Science Member - Darren

Tea Break

Mentor Briefing and Training Session
by Microsoft AI Solution Lead - Pek

Lunch Break

Team Groupings

Briefing and Business Use Case
Discussion

Team Ideation & Development
Session

Mentoring & Briefing Session

Trainers:

Darren Wee (**Data & AI Team**)
Zhi Xuan Pek (**Microsoft, AI Solution Lead**)



Hackathon Training

Trainer: Darren Wee



CapitaLand Introduction

CapitaLand Group (founded 2000) is a global real estate company with ~11,500 employees, operating in over 270 cities across 45+ countries.

In September 2021, it was restructured into two distinct entities:

- **CLI** (CapitaLand Investment) – public, focusing on real estate investment and fund management.
- **CLD** (CapitaLand Development) – private, focusing on property development.



Brief introduction to Data & AI

Who we are:

The team is comprised of

- Data Scientists, Data Analysts, Data Engineers and Business Analysts

Where we served the entire CapitaLand Group from **automation, descriptive to advanced analytics use cases.**

What we do:

The D&AI team is the owner of

- CapitaLand Enterprise Data Platform (EDP)
- AI/GenAI Platform

responsible for **overseeing and managing the centralised data and AI/Gen AI platform**, including its security, architecture and data & AI governance

Notable Projects that D&AI handles

Capitastar OCR

Software created to help with scanning receipt numbers, mall ID and adds the transaction to the user's account.



Discover ASR's Cubby

Cubby is a generative AI chatbot designed to **improve the hospitality experience** by providing personalized travel plans and advice.



AI Hackathon Objectives:

Bridge academia & industry

- unite students and BU experts

Promote GenAI driven innovation

Foster intra-CLI collaboration

Target real BU challenges

- Maintain business relevance

Enable rapid prototyping

- Proof of concept within hackathon period

What to expect?

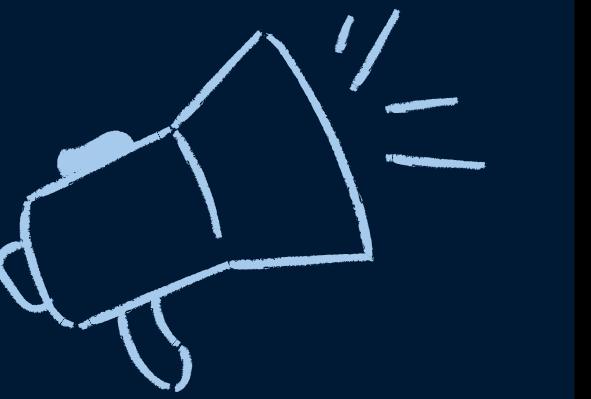
Real-World Innovation

All real-life use-cases coming from 8 business functions spanning from CapitaLand Investment, CapitaLand Development and Ascott



Driving Impact

Each function presents unique challenges and opportunities, allowing us to unlock unique AI opportunities to drive real business impact.



From ML to GenAI

Wide ranges of use cases covering both ML (e.g. customer segmentation) and GenAI (e.g. chatbots, RAG apps).





How to Build?

Allowed:

Students are allowed to use open-source packages like

- LangChain/LangGraph
- Autogen/Semantic Kernel

Azure Resources will be provided to you full suite of Azure tools from Azure Content Understanding to Azure Foundry (training provided) , incl. LLM models from Azure OpenAI

Restrictions:

- **All Large Language Model calls must be utilizing Azure Foundry endpoints** (for confidentiality)
- Any vector store should be utilizing Azure AI Search through the azure resource group provided to you



What to deliver

Needed:

- Code to be uploaded to Azure Repo
- Evaluation techniques (both for GenAI and traditional ML use cases)
- Full demo of your application/use cases [localhost is enough for presentation e.g. streamlit, PowerBI for dashboard analytics use cases]

Not Needed:

- No need for end-to-end solution in terms of architecture: e.g. containerization (docker), CI/CD pipeline, full frontend/backend web application
- For LLM applications, you may ignore jailbreaking

GenAI in Capitaland

Workflows:

- Structured output / Extraction using LLM (e.g. review classification)
- Summarization (Web scrape news articles + search results on risk assessments / news announcements of our company for Internal Audit purposes)

Exploration/Development:

- Full agentic framework – Multi-agents

Chatbots:

- Retrieval Augmented Generation (RAG) on internal policies
- Singular React Agent – EnterpriseGPT with tools to Bing search

Platforms/Packages we use:

- OpenAI Completions
- Agents SDK
- Autogen
- LangChain

Considerations:

Workflows & Agentic workflow

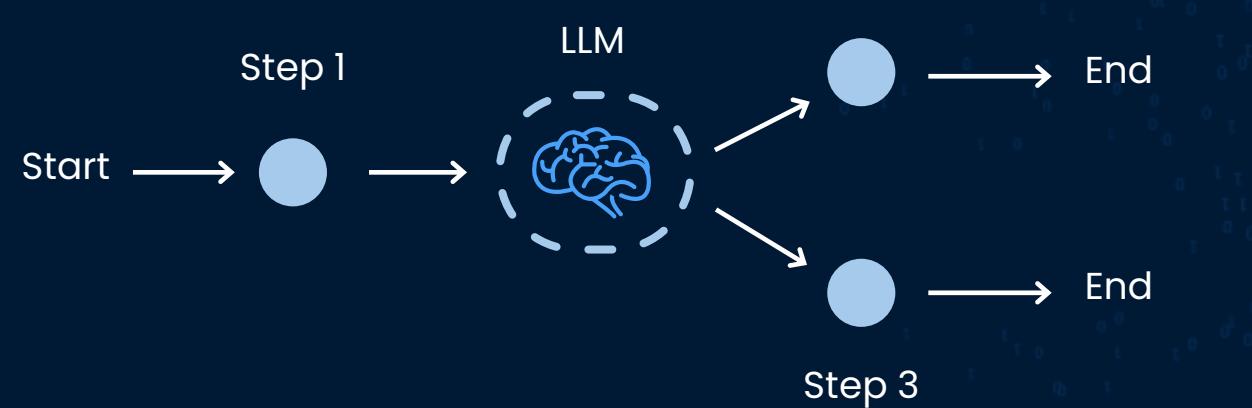
Workflows

- Allows the LLM less control (but more control for us)

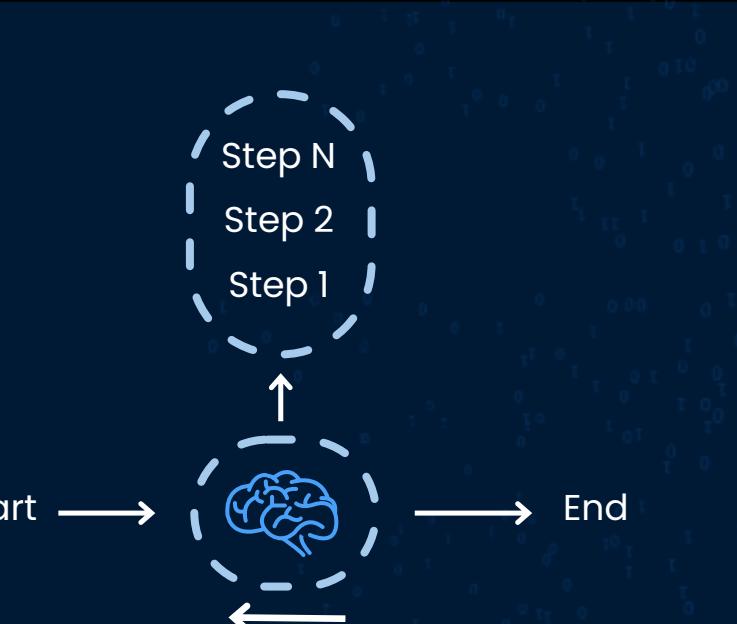
Agentic Workflows

- Allows the LLM more control on deciding the path taken to achieve the task.

Router: Less Control



Autonomous: More Control



Considerations:

RAG application

Ingestion of documents for RAG:

- Text Content
- Images
- Flowcharts
- Financial Tables

Recommended solutions:

- Azure Form Recognizer
- Azure Content Understanding
- Microsoft's MarkitDown

Evaluation Techniques

RAG Evaluation

- Groundedness
- Completeness
- Relevance
- Correctness

Metrics: Perplexity, Rouge score, Bleu score, LLM Evaluation

Platforms: Azure Foundry's Prompt Flow / RAGAS

Final Considerations

Please exercise caution with the data we provide.

Even though it is masked, it remains confidential and sensitive to CapitaLand's business and operations.

- Whenever possible, use Azure for processing and refrain from uploading any data to external LLMs like OpenAI or Claude
- All LLM calls should be conducted through Azure Foundry to prevent any potential data leakage.

Tea Break

09:45AM – 10:15PM

Please be back in your seats by 10:10PM



Lunch Break

12:00PM - 14:00PM

Please be back in your seats by 01:45PM



Team Groupings

13:50PM - 14:00PM



Group 1: Digital Platform

Rachel Sherafin Korompis

Tang Jiaxin

Dominic Koh Song Jun

Marshall Poh

Group 2: Ascott B&M

Shirley Hu Zhixuan

Chan Jia Le Kevin

Premil Roshan

Group 3: Ascott RM

Dhiraputta Pathama Tengara

Tan Khang Hou

Sandrina Agnes Natalie

Group 4: CSS

Jason Matthew Suhari

John-Henry Lim

Jhanvi Sahu

Group 5: PCM

Palinya Sengdalavong

Ang Chin How, Xavier

Dillon Tan Hong Xun

Song haolong

Group 6: Investor Relations

Yee Ting Hwei

Chiramal Kevin

Tan Shao Hng Sherman

Manisekaran Harish

Group 7: PDDM

Ang Wenxuan

Shan Yuxuan

Tan Shao Hng Sherman

Teo Hui Qian

Group 8: PAS

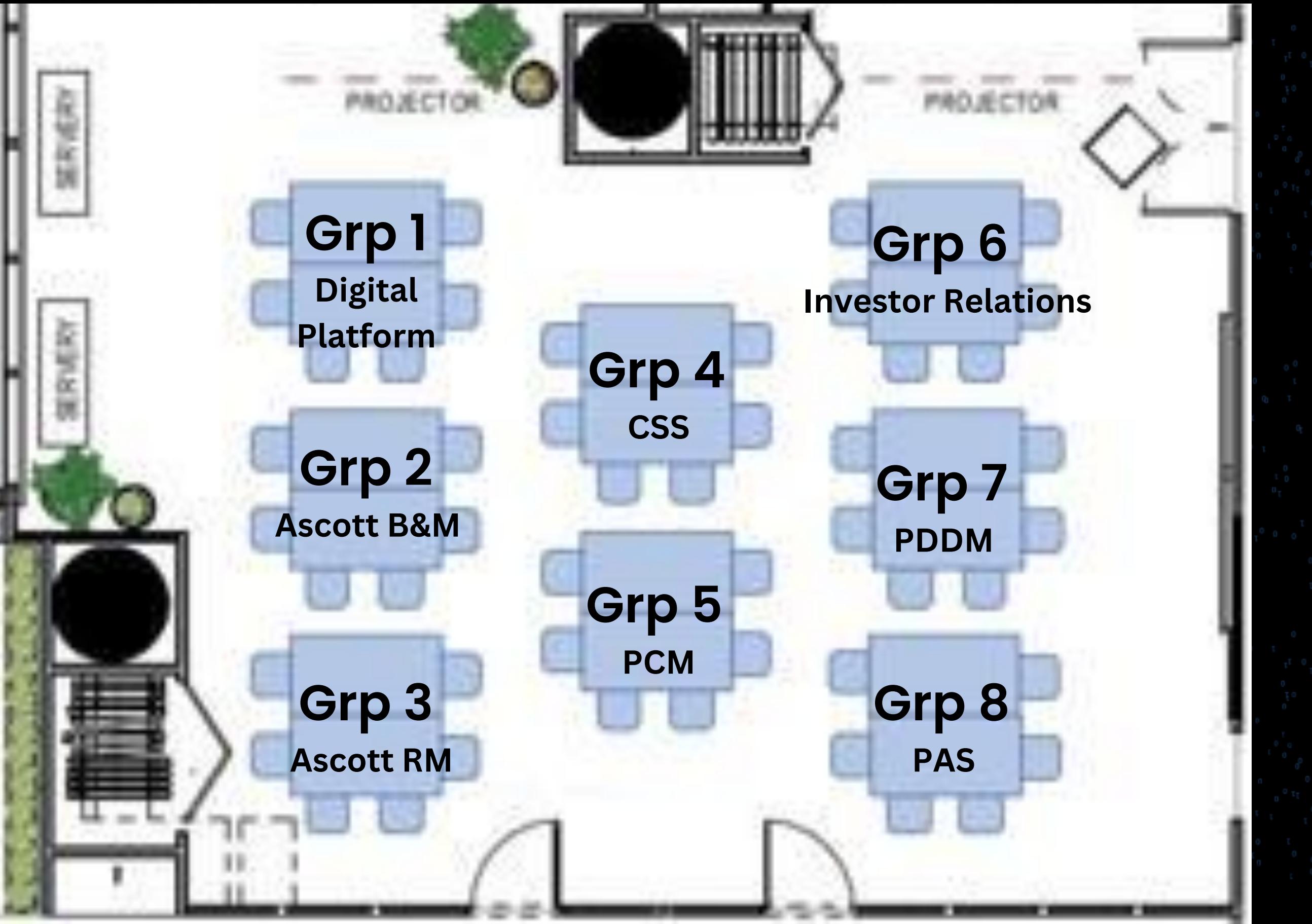
Tan Jun Ye John Ernest

Boon Kai Xiang

Isaiah Lee Wei En

Cao Thi Ha Phuong

Seating Arrangement



AI Hackathon

Day 1 Agenda (31Jul)

08:30 – 10:00	Registration and IT Set Up by CLI CCO – Ms. Quah Ley Hoon
10:00 – 10:30	Opening Address
10:30 – 11:00	Team Formation & Drawing Pitching Sequence
11:00 – 12:00	Development Work Session
12:00 – 13:30	Lunch Break
13:00 – 18:00	Development Work Session

Day 2 Agenda (01Aug)

08:30 – 09:00	Registration
09:00 – 12:00	Development Work Session
12:00 – 13:30	Lunch Break
13:30 – 15:30	Development Work Session and Pitching Slide Preparation
15:30 – 17:10	Team Presentations & Demonstration
17:10 – 17:30	Judging Deliberation & Networking Break
17:30 – 18:00	Awards Ceremony & Closing Remarks Awards by CLI CSO - Mr. Ervin Yeo Closing Remarks by CLD CCO – Mr. Tony Tan

Judging Panel



Ervin Yeo

Group Chief Strategy Officer and
Chief Executive Officer, Commercial
Management CapitaLand Investment



Quah Ley Hoon

Group Chief Corporate Officer
CapitaLand Investment



Wong Hwee Lim

Head of Digital International,
CapitaLand Investment



Tony Tan

Chief Corporate Officer
CapitaLand Development

Judging Panel



Pek

Microsoft, AI
Solution Lead



Brian Ang

NUS, institution of Systems
Science -Chief, MTech Enterprise
Business Analytics Programme

Judging Categories

Strategic Impact - 40%

Solution Execution - 40%

Creativity & Storytelling - 20%

Business Impact - 20%

Does the solution solve a meaningful business problem or opportunity?

Does it create value, potential positive outcome or benefit for business (e.g., cost savings, revenue growth)?

Strategic Impact - 40%

Feasibility & Scalability - 20%

Is the solution practical to implement in a real-world setting?

Can it scale across different teams, regions, or use cases?

Solution Execution 40%

Implementation & Execution - 20%

How well does the prototype or demo function technically?

Are the core features implemented and working as intended?

User Experience & Adoption - 20%

How intuitive is the user experience?

Is it likely to be adopted by users with minimal friction or training?

Originality & Smart Use of AI – 10%

Is the idea original or a clever application of AI/GenAI?

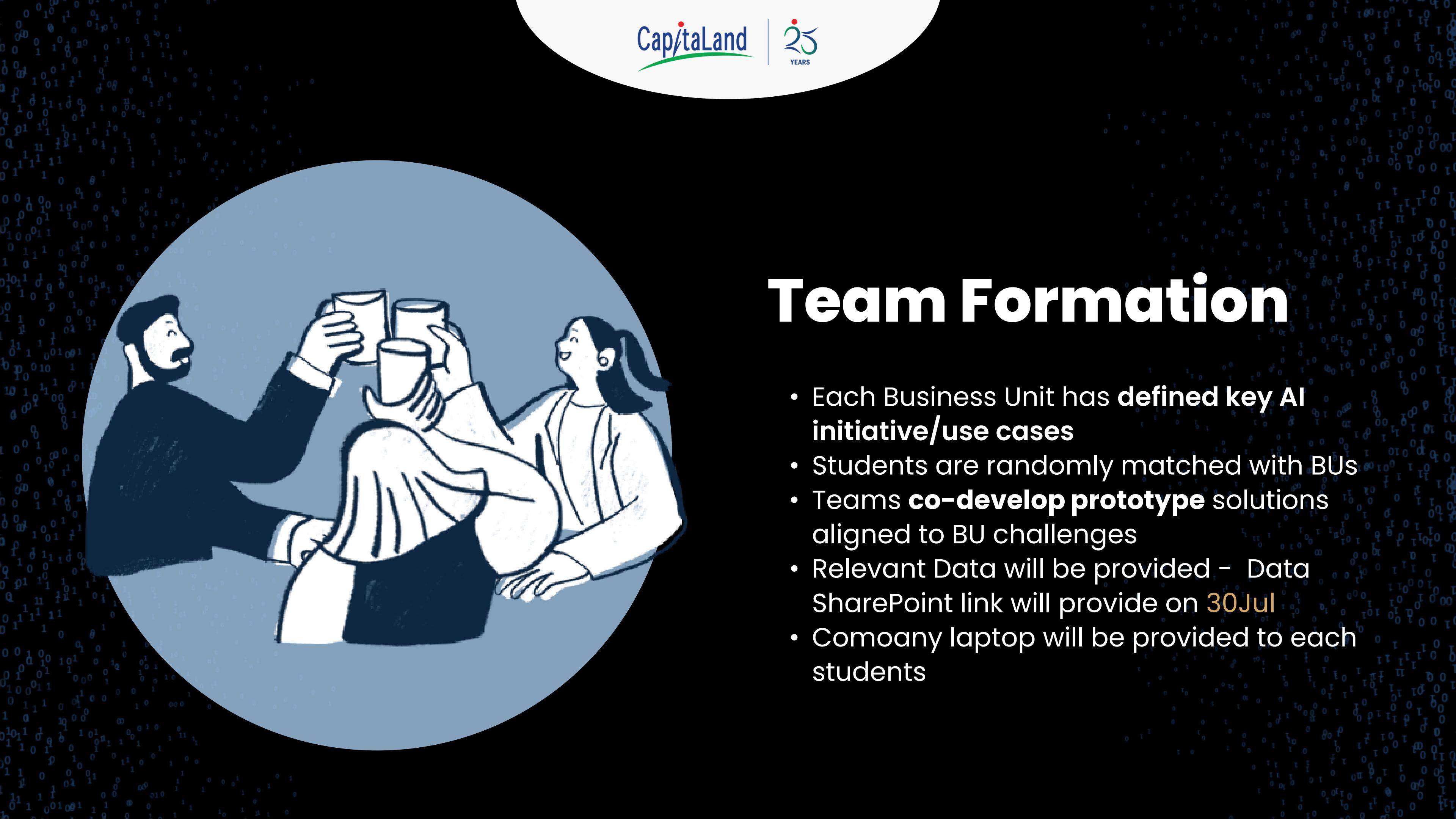
Does it bring fresh thinking to existing challenges?

Creativity & Storytelling 20%

Presentation & Team Collaboration – 10%

Was the solution clearly presented?

Did the team demonstrate strong collaboration and communication throughout the process?



Team Formation

- Each Business Unit has **defined key AI initiative/use cases**
- Students are randomly matched with BUs
- Teams **co-develop prototype** solutions aligned to BU challenges
- Relevant Data will be provided - Data SharePoint link will provide on **30Jul**
- Company laptop will be provided to each students

Presentation Limitation

- Strictly 10 mins per team: 5 min pitch + 5 min Q&A
- Highlight problem statement and solution
- Upload the pitching deck into dedicated location

Pitching & Collaboration Tips



1. BU representatives
 - Present existing business challenge and context
2. Student teams
 - Introduce their proposed AI solution approach, prototype demos, methodologies, next steps.

Event Day Reminder

(31 Jul - 1 Aug)



Logistics & access:

- Venue **opens at 08:30** both days
- Laptop provided, but you may bring your own if preferred

Data:

- Project-relevant data-sets **available from 30 Jul only**

Meals:

- Lunch and tea breaks included

Important:

- Not a two-day event
- Do pre-event homework: study your assigned use case **in advance**



Let's Get Started!

1. Each business unit will present the use case to the assigned student group.
2. Set up a WhatsApp group for team communication.

Business Use Case Discussion

02:15PM - 03:00PM



Group Discussion

03:00PM - 06:00PM
Student Self-Discussion

