



Module 12

Kickoff Workshop



Icebreaker

Model Feedback Loop

Which of these actions helps improve a model over time?

- ❖ Set a performance benchmark
- ❖ Ignore model drift
- ❖ Monitor predictions consistently
- ❖ Deploy without updates



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Agenda

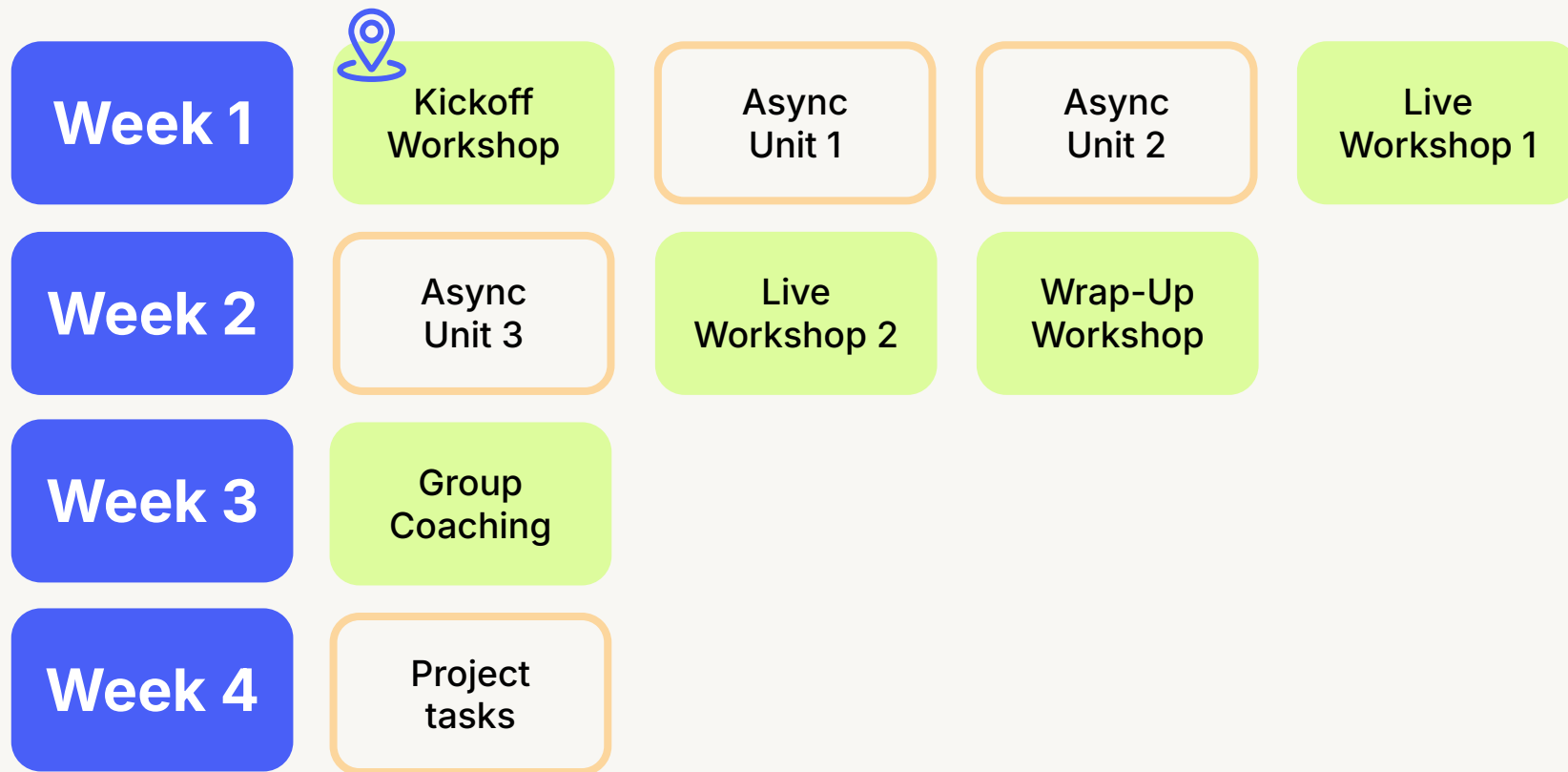
- **Welcome and introduction**
- **Module overview**
- **Applying module skills**
- **Project overview**
- **Q&A**
- **Next steps**



Module overview



Your learning journey



Module skills: from learning to applying

Create and implement monitoring systems that track ML model performance



Setting up tools and alerts to detect performance issues, drift, or anomalies, ensuring models continue to deliver accurate and trustworthy results in production.

Design ML systems that can scale efficiently



Building modular and flexible ML pipelines that can handle increased data and complexity without sacrificing performance or blowing through compute budgets.

Manage and monitor the full ML lifecycle for compliance and resource optimisation



Overseeing model development, deployment, and maintenance to ensure regulatory standards are met and infrastructure is used cost-effectively.



Skill 1 in the real-world

Create and implement monitoring systems that track ML model performance



In 2022, Netflix enhanced its content recommendation engine by deploying real-time monitoring systems that detect performance drift and content fatigue across regions.



By catching early signs of drift, Netflix prevented a decline in user engagement and retention — enabling dynamic adjustments to keep recommendations fresh and relevant.



By integrating feedback loops from user interactions, the system could proactively suggest retraining schedules and auto-adjust parameters based on evolving behavior.





Applying module skills to your workplace



Skills application brainstorm

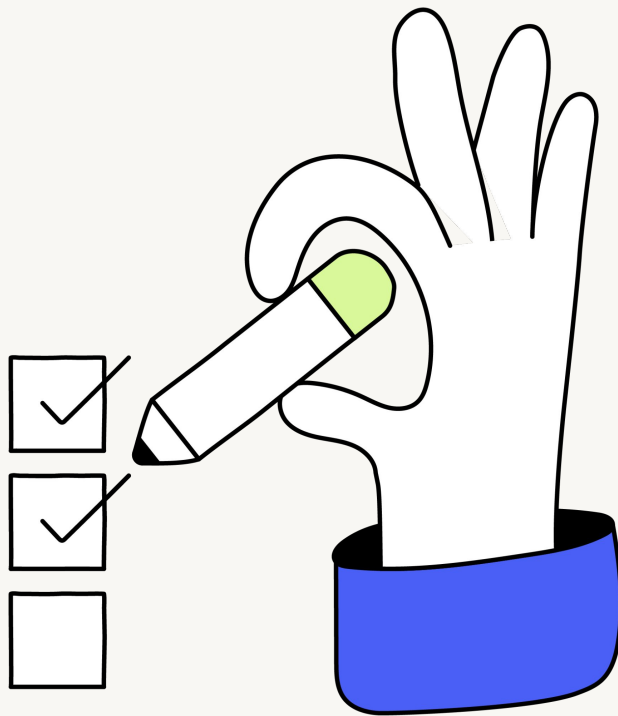
Choose a module skill and think of 3 ways to apply it in your role



Create a post for the group explaining how you'd like to apply this skill this month



Post your explanation in the Skill Application Brainstorm discussion board





Skill application share out

- 1 Review other discussion posts.
- 2 Choose another person's post that you think is a great example of applying the skill.
- 3 Raise your hand to share your thoughts.





Project overview

Phase 3 project: Deploying ML models

Project objective: Deploy an accessible, scalable, secure, and cost-efficient ML model while maintaining and adapting its performance and providing clear communication.

**Module 11
milestone:**
Model
Deployment

**Module 12
milestone:**
Monitoring,
Maintenance, and
Continuous
Learning

**Module 13
milestone:**
Communication,
Documentation,
and Inclusive
Collaboration

We are here!



Module 12 milestone: Monitoring, maintenance, and continuous learning

Phase project objective: Deploy an accessible, scalable, secure, and cost-efficient ML model while maintaining and adapting its performance and providing clear communication.

Milestone task 1



Model monitoring and adaptation: Implement strategies for real-time monitoring and evaluation of data and model performance, and plan for proactive adaptation and refinement to maintain model robustness.

Milestone task 2



Scalability and capacity management: Assess and plan for adjusting ML model capacity in response to fluctuating demand, optimising costs, and considering the implications of different data types on infrastructure.

Milestone task 3



Model lifecycle management and decommissioning:: Define a structured approach for managing the entire lifecycle of your ML model, including change management, version control, and a clear decommissioning process for outdated or non-performing models.

Module 12 milestone: KSB requirements

Phase project objective: Deploy an accessible, scalable, secure, and cost-efficient ML model while maintaining and adapting its performance and providing clear communication.

Task 1 KSBs



Model monitoring and adaptation: S9, S24

Task 2 KSBs



Scalability and capacity management: K15, S19

Task 3 KSBs



Model lifecycle management and decommissioning: S18, K14, S25



Questions?



Closing out

- **Action items:** Async Unit 1
- **Have questions?**
 - Chat with Atlas
 - Reach out to your Cohort Coach
 - Sign up for Tutoring
- **Log your OTJ hours**
- **Take the Workshop Survey** on My Multiverse

multiverse