

ADVANCED AI DEVELOPMENT

Advanced Claude Code Course: Full-Stack Development, MCP & CI/CD

Take AI-assisted development into production with full-stack architecture, MCP integrations, automated testing and delivery pipelines.



DURATION

2 days

DELIVERY

Public or in-house

Why this programme

This advanced programme is designed for participants who already understand AI-assisted coding and want a professional workflow. It covers the practices needed to manage larger projects, improve reliability and connect Claude Code to tools and delivery pipelines. Participants work through full-stack development, test-driven workflows, CLAUDE.md strategy, Model Context Protocol servers, headless automation, CI/CD and cost-conscious use on real codebases.

What participants will learn

- 01** Apply advanced prompting and CLAUDE.md patterns to complex development work.
- 02** Build and test integrated front-end, back-end and database features.
- 03** Create MCP servers that connect AI workflows with tools and data.
- 04** Integrate headless workflows into CI/CD and manage usage cost.

Who should attend

Software developers, AI engineers, technical leads, DevOps teams, vibe coding graduates and product engineers.

How you will learn

Trainer explanation, guided application and discussion connect the module topics to practical workplace situations. The final emphasis is on applying the methods in your own role or team.

Detailed programme

The sequence and emphasis can be tailored to participant needs.

01 From fundamentals to mastery

- Control project context and break larger development tasks into clear stages.
- Use structured planning and prompting patterns for complex work.
- Review the quality of generated changes against project requirements.

02 Full-stack and test-driven development

- Connect front-end interfaces, back-end services and database features.
- Use test-driven workflows to clarify expected behaviour.
- Check integrations and investigate failures across the application stack.

03 CLAUDE.md and codebase strategy

- Define project instructions, conventions and reusable context in CLAUDE.md.
- Navigate existing codebases and identify the areas relevant to a task.
- Use review and refactoring to improve maintainability as the project grows.

04 MCP server development

- Explore Model Context Protocol tools, resources and integration patterns.
- Consider authentication and the boundaries of access to external tools and data.
- Build a practical integration that supports an AI-assisted workflow.

05 Headless mode, CI/CD and optimisation

- Use headless workflows for repeatable development tasks.
- Connect automation with testing, delivery pipelines and deployment checks.
- Review usage and cost alongside reliability and development outcomes.

PRACTICAL APPLICATION

A production-oriented full-stack AI project.

HRD Corp claimable training is arranged through Orange Revolution. Confirm programme eligibility and claim arrangements with ISDS before booking.

Plan your training with ISDS

Discuss fees, trainer arrangements and delivery options for your team.

admin@isds.com.my | +60 18 392 1671 | [Course page](#)

Contact: Daud Ibrahim | ISD Solution