



A 6-WEEK PRACTICAL COHORT · LIVE ONLINE

AI-Native Product Engineering



with **Claude Code** and **Claude Design**

Take one enterprise product from a business idea to a tested, secured and deployed application — requirements, design, architecture, development, testing, security and CI/CD — using a structured engineering workflow with Claude.

Design → Build → Test → Deploy

For developers & IT professionals



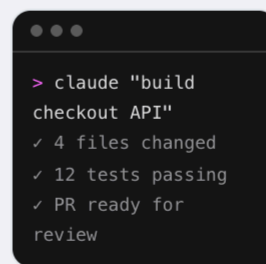
Business Idea

BRD · PRD · backlog



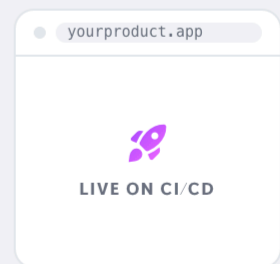
Claude Design

Prototype · design system



Claude Code

Build · test · secure



Deployed Product

Monitored · in production

1

ENTERPRISE
PRODUCT

6

LIVE SESSIONS

24

DELIVERABLES

6

WEEKS

The Complete Product Lifecycle, Not Just Code Generation

Modern engineers are expected to understand requirements, contribute to design, evaluate architecture, build features, test, secure and deploy. This cohort teaches Claude Code and Claude Design across every one of those stages.



By the end, you will have shipped one enterprise product — from BRD and prototype to tested, secured code running on a live CI/CD pipeline, with 24 portfolio deliverables to show for it.

Programme Format

DURATION 6 Weeks	LIVE SESSIONS 5 × 1.5–2 hrs	WEEKLY PRACTICE 4–6 hrs
FORMAT Live Online	SUPPORT Live Doubt Support	CREDENTIAL Certificate from TMLC

Week by Week

WEEK 1

Discovery,
Requirements and
Product Foundation
Session 01

WEEK 2

Product Design
Session 02

WEEK 3 AND 4

Architecture &
Development,
Testing
Sessions 03–04

WEEK 5 AND 6

Ship & Roadmap
Session 05 - 06

Ideal For

Software Developers

Full-Stack Engineers

DevOps & Platform

Technical Leads

Solution Architects

Technical PMs

Tech Founders

PRE-REQUISITES

Minimum: Basic programming knowledge and familiarity with Git/repositories.

Good to Have: Experience building or contributing to a web application, with basic understanding of APIs, databases, and software development workflows.

Five Sessions.

One Enterprise Product.

Every session advances the same capstone product, so the workflow you learn is the workflow you can repeat at work on Monday.

SES	TOPIC & FOCUS	KEY CONCEPTS	MILESTONE OUTPUT
01	Product Discovery, BRD & PRD Define the product before you build it	Lifecycle · Stakeholders · Success Metrics · BRD · PRD · Functional & Non-Functional Requirements · User Stories · Prioritisation · MVP Scope	BRD, PRD, user stories and a prioritised MVP backlog
02	Product Design with Claude Design Turn requirements into experience	User Journeys · Information Architecture · Flows · Wireframes · Hi-Fi Screens · Design Systems · Empty, Loading & Error States · Handoff	Interactive prototype, design system and handoff notes
03	Architecture & Claude Code Foundations Set the technical ground rules	Monolith vs Microservices vs Serverless · API Design · Data Modelling · Auth · HLD · TRD · ADRs · CLAUDE.md · Plan Mode · Permissions · Git Workflow	TRD, HLD, architecture diagram and a configured repository
04	Development, Testing & Defect Resolution Ship a feature that actually works	Vertical Slices · Frontend & Backend · Validation · Error Handling · Multi-File Review · Refactoring · Unit, API & E2E Tests · Root-Cause Analysis · Pull Requests	A working, tested feature and a reviewable pull request
05	Security, CI/CD, Deployment & Roadmap Make it production-ready	AuthN/AuthZ Checks · Secrets & Env · Dependency Security · Docker · CI/CD Gates · Staging Deploy · Monitoring · Rollback · Production Readiness	🏆 A deployed product plus a future roadmap

9

Lifecycle stages covered, from business idea to production roadmap

24

Capstone deliverables — documents, designs, code, tests and deployment evidence

2

Claude workflows mastered together — Claude Design and Claude Code

01

Product Discovery, BRD and PRD Creation

Convert a business idea into a clear, structured and implementable product definition.

CONCEPTS COVERED

- The product engineering lifecycle, end to end
- Framing the business problem, users and stakeholders
- Business Requirements Document (BRD)
- Product Requirements Document (PRD)
- Functional and non-functional requirements
- User stories and acceptance criteria
- Feature prioritisation and MVP definition
- Using Claude to review and challenge requirements

TOOLS

Claude

Claude Projects

Markdown

Jira / Linear

MILESTONE 1

Product Definition Pack

Problem statement, stakeholder map, BRD, PRD, user stories, acceptance criteria and a prioritised MVP backlog for your own product.

Outcome: You can turn an unstructured business idea into a product definition an engineering team can build from — and defend the scope decisions behind it.

02

Product Design with Claude Design

Turn requirements into a coherent, usable and implementation-ready experience.

CONCEPTS COVERED

- Translating requirements into user journeys
- Information architecture and screen hierarchy
- Primary and secondary user flows
- Wireframes and interface concepts
- High-fidelity screen design in Claude Design
- Reusable components and design systems
- Empty, loading, error and permission states
- Design-to-code handoff

TOOLS

Claude Design

Design Systems

Prototypes

Handoff Notes

MILESTONE 2

Interactive Product Prototype

User journey, application flow, screen inventory, core screens, a reusable design system and a clickable prototype aligned to your PRD.

Outcome: You can design and validate a complete product experience — including the states most teams forget — and hand it to development without ambiguity.

03

Architecture, Technical Planning and Claude Code Foundations

Choose an architecture and prepare the repository for controlled AI-assisted development.

CONCEPTS COVERED

- Monolith, modular monolith, microservices and serverless — trade-offs
- Frontend, backend, API and database architecture
- Data models, authentication and authorisation
- High-Level Design and Technical Requirements Document
- Architecture Decision Records
- Writing CLAUDE.md, Plan Mode and permissions
- Context management, Git workflow and pull requests
- Breaking the product into implementation milestones

TOOLS

Claude Code

CLAUDE.md

Git & GitHub

PostgreSQL

ADR Templates

MILESTONE 3

Architecture & Repo Setup

TRD, HLD, architecture diagram, API structure, data model, an ADR, an implementation plan and a Claude Code repository configured with project instructions.

Outcome: You can justify an architecture against real constraints and set up an AI-assisted repository where every change stays reviewable.

04

Feature Development, Testing and Defect Resolution

Build complete features and prove the generated software works.

CONCEPTS COVERED

- Feature breakdown and vertical-slice development
- Frontend, backend and database implementation
- API integration, input validation and error handling
- Unit, API and integration testing
- Generating tests from acceptance criteria
- Defect reproduction and root-cause analysis
- Regression testing and code review with Claude Code
- Preparing a reviewable pull request

TOOLS

Claude Code

React / Next.js

FastAPI / Node

Pytest / Jest

Playwright

MILESTONE 4

A Working, Tested Feature

A complete feature slice — frontend, API and database — with unit, API and E2E tests, resolved defects and a reviewable pull request.

Outcome: You can direct Claude Code to build complete features — and prove the generated software works with tests you trust.

05

Security, CI/CD, Deployment and Product Roadmap

Make the product production-ready — and plan what comes after launch.

CONCEPTS COVERED

- Security review with Claude Code: AuthN/AuthZ, input hardening
- Secrets management and environment configuration
- Containerising the application with Docker
- CI/CD pipelines with automated quality gates
- Deploying to a staging and production environment
- Monitoring, logging and alerting basics
- Production readiness checklist
- Turning learnings into a v2 product roadmap

TOOLS

Claude Code

Docker

GitHub Actions

AWS / Vercel

OWASP

MILESTONE 5

🏆 **A Deployed Product + Roadmap**

Your capstone, secured, containerised, running through a CI/CD pipeline in a live environment — with a monitoring view and a v2 roadmap.

Outcome: You can take AI-generated software the last mile — secure it, automate its delivery, deploy it and stand behind it in production.

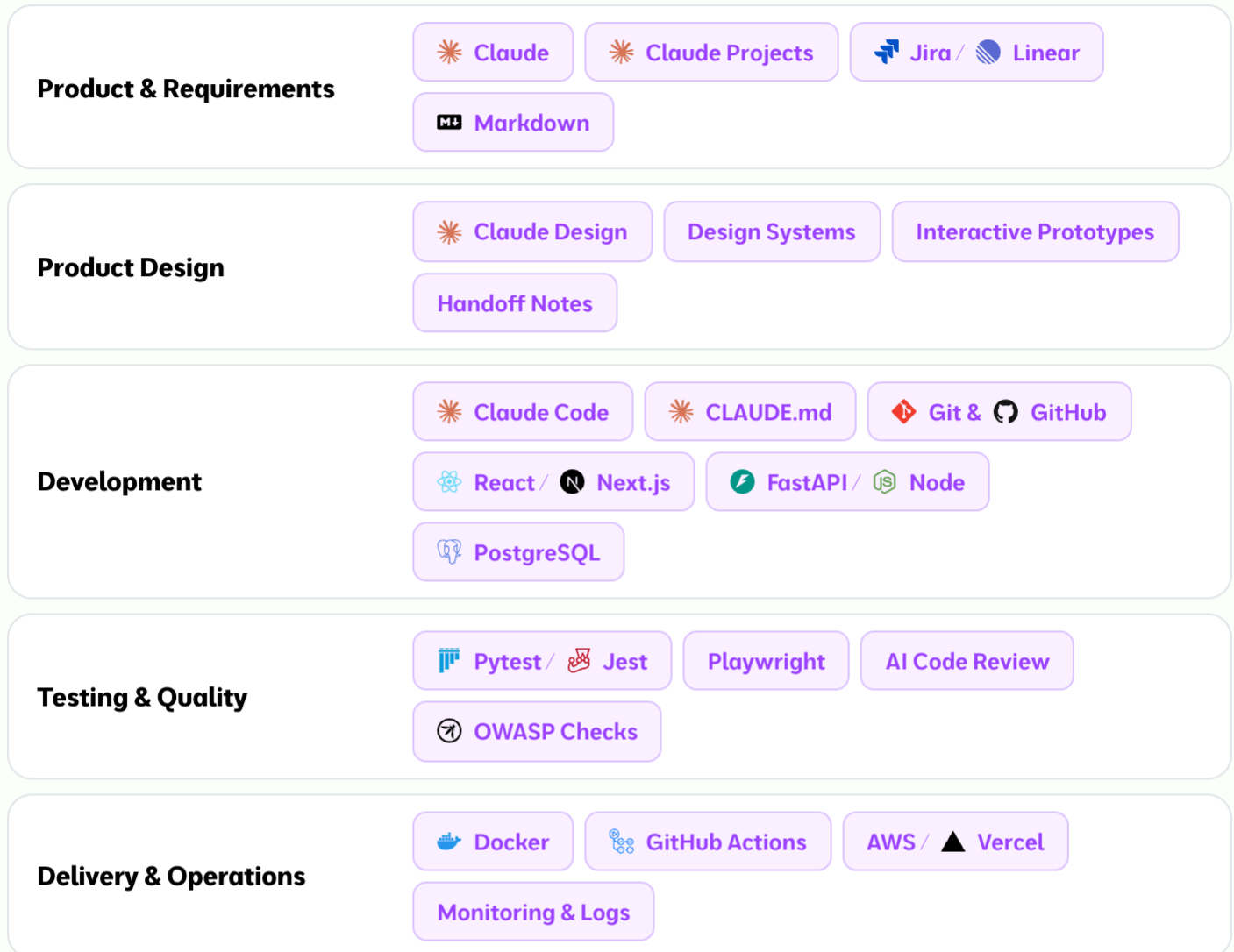
The Capstone: 24 Deliverables, One Product

Every deliverable is portfolio evidence — documents, designs, code, tests and a live URL.

DEFINE	DESIGN	ARCHITECT	BUILD	SHIP
Problem Statement	User Journeys	HLD	Feature Code	Security Review
BRD	Wireframes	TRD	Test Suite	Docker Image
PRD	Hi-Fi Screens	Data Model	Pull Request	CI/CD Pipeline
User Stories	Design System	API Contracts		Deployed App
MVP Backlog	Clickable Prototype	ADR		v2 Roadmap
		CLAUDE.md		

The AI-Native Engineering Stack

Current, production-relevant tools at every lifecycle stage — not academic demos.



12 Core Skills You'll Acquire



How This Programme Can Accelerate Your Career

AI is changing what companies expect from software engineers. The advantage belongs to people who can understand a problem, make engineering decisions and use AI to take products from idea to production.

Become More Than a Developer

Work across the full lifecycle — understand the complete product, not just one piece of it.

Requirements → Design → Architecture →

Development → Testing → Deployment

Developer → Product Engineer



Become the AI-Native Engineer Teams Need

Prompting is becoming common. Directing AI across a real engineering workflow is far more valuable.

Context

Specs

Constraints

Review

Don't compete with AI. Lead the work AI can accelerate.

Take Greater Ownership at Work

Solve ambiguous problems instead of waiting for perfectly defined requirements — the ownership expected from senior engineers and leads.

Business Idea → Product Scope → Technical Plan

→ Working Product



Build Proof, Not Just Certificates

Finish with a complete capstone — a stronger career story than listing another tool on your résumé.

"Here is the product I designed, architected, built, tested and deployed."

Have Better Engineering Conversations

Discuss MVP scope, architecture, API design, data models, testing, security and CI/CD — fluently.

Product Managers Architects Engineering Leads

DevOps Founders Stakeholders



Expand the Roles You Can Grow Into

AI-Native Product Engineer

Senior Software Engineer

Full-Stack Engineer

Technical Lead

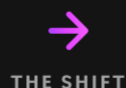
Solution Architect

Technical Founder

Build the skills, portfolio evidence and ownership mindset these roles expect.

BEFORE

"I can build the feature assigned to me."



THE SHIFT

AFTER

"Give me the problem. I can figure out how to build and ship the product."

The engineers who grow fastest in the AI era won't simply write more code — they'll use AI to take greater ownership and ship more valuable products. **That is the advantage of becoming an AI-Native Product Engineer.**

Learn From a Practitioner Building **Enterprise AI Systems**

Learn from a Kaggle-ranked practitioner deeply experienced in building software products for the top global technology enterprises.



Saurabh Shahane

Founder & CEO, The Machine Learning Company

- ⚡ 9+ years building enterprise Data Science, GenAI and AI projects across multiple domains
- ⚙️ Consulted global enterprises and startups on AI strategy, architecture, deployment and scalable GenAI adoption
- ✦ Impacted 10,000+ professionals through outcome-driven AI learning programmes focused on practical implementation
- ✂️ This programme teaches the same AI-native product engineering workflow used inside TMLC to take products from idea to production.

9+

Years in enterprise AI & data science

10,000+

Professionals trained through TMLC programmes

1:1

Live doubt support throughout the cohort

What TMLC Academy Learners Say

From TMLC Academy's Guided Projects cohorts

"Guided Projects from TMLC was an amazing experience. The mentors are great at tutoring. This worthy course builds projects on real-world business use cases. If you're consistent, you'll get the BEST out of this course!"

Vetrivel PS

Lead NLP Engineer, Genpact

"I wanted real-time projects with team deadlines — TMLC provided exactly what I needed. I gained end-to-end pipeline, integration and deployment skills. I recommend being part of it and keep learning."

Sandeep Kirwai

Data Scientist II, Pattern

"The mentors are extremely professional with vast knowledge of the field, providing the right guidance wherever necessary. I would recommend it to anyone who is interested."

Manasvi Logani

Data Scientist, Newgen Software

"Great exposure working with real projects and deploying to cloud resources. The TMLC team has rock-solid knowledge and expertise to guide on real-time issues. Every mentor session was really helpful with lots of insights."

Sandeep Raj

Software Engineer, Doodle Labs

Join 1,000+ practitioners · Software Engineers · Data Scientists · Architects · CTOs · Project Managers

Frequently Asked Questions

Do I need to know how to code?

Yes — working knowledge of one programming language, Git and APIs. This is a professional programme, not a coding bootcamp.

Do I need paid Claude access?

Yes — a separate Claude subscription is required and is not included in the programme. We'll guide you through setup before Session 01.

What if I miss a live session?

Every session is recorded, and you keep 2 years of access to recordings, templates and materials.

Is this a GenAI / ML course?

No — it's a product engineering programme. You use AI tools to ship software; you don't train models.

Do I get a certificate?

Yes — an industry-recognised Certificate of Completion from TMLC, backed by your 24 capstone deliverables.

ENROLL TODAY

Ready to Ship Products the **AI-Native** Way?

One product, the complete lifecycle, and a workflow you can repeat at work on Monday. The live cohort starts 24 October 2026.

COHORT STARTS

24 October 2026

Live weekend cohort · 6 weeks

Live sessions on weekends

Limited seats per cohort

Applications reviewed on a rolling basis

Enroll Now →

Everything Included

- ✓ 1 enterprise capstone with 24 portfolio deliverables
- ✓ Live 1:1 doubt support from expert mentors
- ✓ 2 years access to recordings and materials
- ✓ Professional AI community access
- ✓ 6 live weekend sessions (1.5–2 hrs each)
- ✓ Industry-recognised Certificate of Completion
- ✓ BRD, PRD, TRD, ADR and CLAUDE.md template library
- ✓ Job / research opportunities (select cases)

How to Enroll

1 Visit tmlcademy.in and open the programme page

2 Click "Enroll Now" to secure your spot

3 Complete enrollment for instant access to onboarding

4 Set up Claude Code and Design, join Session 01

WEBSITE

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