



ZERO TO AGENT

# AGENTIC ENGINEERING WORKSHOP

Build Real Software with AI — From Zero to Production-Ready

AR Sajid • February 2026

# Today's Workshop

- 01 • What is AI? — The landscape explained simply (15 min)
- 02 • AI Use Cases — From marketing & content to your business (25 min)
- 03 • Prompt Engineering — Talking to AI effectively (30 min)
- 04 • Your Development Toolkit — Agents, Skills, and MCPs (25 min)
- 05 • Putting AI to Work — Live exercises with real tasks (30 min)

## SECTION 01

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# WHAT IS AI?

Understanding the landscape before we build

~20 minutes

# What is Artificial Intelligence?

AI is software that can learn patterns from data and make decisions or predictions without being explicitly programmed for every scenario. Think of it like teaching a computer to recognize patterns the way you learned to recognize faces as a child.

- It learns from examples, not hard-coded rules
- It can process and generate text, images, code, and more
- It gets better the more data and feedback it receives
- It's a tool — powerful when directed well, useless without clear instructions



# Types of AI You'll Encounter



## Chatbots (LLMs)

ChatGPT, Claude, Gemini — they answer questions and generate text. Think of them as extremely knowledgeable conversation partners.



## AI Agents

LLMs that can take action — write code, browse the web, call APIs, manage files. They don't just answer, they do.



## AI Automations

Workflows that chain AI with other tools — automatically processing emails, generating reports, updating databases.


# Chatbot vs. Agent — The Key Difference

## CHATBOT

- Answers your questions
- Generates text on request
- Stays inside the chat window
- You copy/paste the output
- One conversation at a time

## AI AGENT

- Answers AND takes action
- Writes, tests, and deploys code
- Connects to databases, APIs, files
- Executes multi-step workflows
- Can run autonomously for hours



10-30x

## **Productivity Multiplier**

Agentic Engineering combines AI agents with enterprise-grade techniques.

This isn't vibe coding. This is systematic software building with AI as your partner.

# The AI Model Landscape



## ChatGPT / GPT Models

OpenAI's models. Great for planning, broad reasoning. GPT-5.2 has best-in-class context retention. Use for PRD generation and architecture.



## Claude / Anthropic

Best for code generation and nuanced reasoning. Claude Code is a terminal-based agent. Excellent for implementation and code review.



## Gemini / Google

Strong at multi-modal tasks and research. Good for analyzing documents, images, and complex data processing tasks.



## Codex / CLI Agents

Terminal-based AI agents that write, test, and deploy code. Codex (OpenAI) and Claude Code (Anthropic) are the frontier tools.



# Context Windows — AI's Memory Limit

Every AI has a limited "context window" — like short-term memory. Everything you type plus everything it responds with takes up space. When the window fills, AI starts forgetting earlier details.

- Your instructions compete with code output for space
- Bloated prompts can push critical requirements out of memory
- Front-load the most important information first
- Every word should provide context, guide processing, or specify requirements





**\$1.17B**

**11 People. One Company. \$1.17B Revenue.**

Hyperliquid — \$106M revenue per employee vs Apple's \$3M.  
a16z predicts prompt-free proactive apps, vertical AI going  
multiplayer, and multi-agent orchestration as the biggest  
opportunities of 2026.

## SECTION 02

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# AI USE CASES

The big picture — then how it applies to your business

~25 minutes

# AI Is Transforming Every Business Function



## Marketing & Content

AI generates ad copy, social posts, email sequences, and campaign briefs. Content teams report 3-5x output with AI assistance — one marketer does the work of a small team.



## Sales & CRM

Lead scoring, automated follow-ups, deal forecasting, proposal generation. Companies report 200% improvement in quote-to-close ratios with AI-powered follow-ups.



## Operations & Logistics

Demand forecasting, route optimization, automated purchasing, inventory alerts. \$100K+ annual savings typical from AI-powered support and logistics routing.



## Customer Experience

24/7 chatbots, sentiment analysis, personalized recommendations, automated ticket routing. 70% support workload reduction with AI ticket classification.

# AI-Powered Marketing & Creative



## Photo Models

Midjourney, DALL-E, Flux  
— generate product shots, lifestyle imagery, and brand visuals without a studio. Feed a reference image and get 50 variations in minutes.



## Video Models

Sora, Runway, Kling, Veo  
— create product demos, explainer clips, and social video from a text prompt or still image. No film crew required.



## Ad Generation

Higgsfield turns a single product photo into scroll-stopping video ads with motion, text overlays, and music. Generate dozens of ad variants for A/B testing in an afternoon.

# The AI Content Creation Workflow

01

## **Ideation**

ChatGPT or Claude brainstorms angles, hooks, and messaging. Feed it your brand voice doc and past top performers.

02

## **Image Generation**

Midjourney or DALL-E creates hero images, product mockups, lifestyle shots. Refine with inpainting and style references.

03

## **Video Production**

Runway or Higgsfield animates stills into video ads. Add motion, transitions, and text overlays — no editing software needed.

04

## **Distribution**

AI resizes and reformats for every platform — Instagram reels, LinkedIn posts, email banners — all from one master asset.

# Five Forms of AI You Can Deploy Today

01

## **Copilots**

AI assists inside your existing tools — autocomplete in email, smart suggestions in spreadsheets, code completion in your IDE

02

## **Chatbots**

Conversational interfaces that answer questions — customer FAQ bots, internal knowledge assistants, product lookup tools

03

## **Automations**

Trigger-based workflows — new order comes in, AI generates invoice, updates inventory, notifies warehouse, emails confirmation

04

## **Agents**

Autonomous AI that executes multi-step tasks — researches competitors, builds reports, writes and deploys code, manages pipelines

05

## **Custom Apps**

Full software products built with AI — the wholesale portal we're building today is exactly this category

# AI Across the Wholesale Value Chain



## Inventory & Demand

AI forecasts demand from historical sales patterns, auto-generates purchase orders, and flags slow-moving SKUs before they eat warehouse space.



## Pricing & Quoting

Dynamic pricing engines adjust dealer tiers based on volume. AI drafts custom quotes in seconds using margin rules you define once.



## Logistics & Fulfillment

Route optimization, shipment tracking summaries, and automated carrier selection. AI reads tracking updates and pushes status to your dealers.



## Dealer Support

AI-powered knowledge bases answer dealer questions 24/7 — order status, return policies, product specs — without your team lifting a finger.



# Your Industry With and Without AI

## MANUAL (TODAY)

- Sales rep manually checks stock levels across 3 spreadsheets before quoting a dealer
- Returns processed by hand — someone reads the email, checks the policy, fills out the form
- Monthly reports take 2 days to compile from multiple sources into a slide deck
- New product listings require manual data entry across website, ERP, and catalog PDFs

## AI-AUGMENTED (TOMORROW)

- Dealer self-serves: portal checks real-time inventory, applies tier pricing, generates quote instantly
- AI reads the return request, checks policy rules, auto-approves or escalates with a reason
- AI pulls data from all sources, generates the report, and emails it every Monday morning
- Upload a spec sheet — AI extracts product data, creates listings, and syncs across all systems

# Connecting AI to Your Business Tools

MCP (Model Context Protocol) lets AI plug directly into the tools you already use. No copy-pasting — AI reads, writes, and acts inside your real systems.

- Google Drive: AI searches your docs, reads spreadsheets, creates files directly in shared folders
- Gmail + Calendar: AI drafts replies, schedules meetings, summarizes threads — all from a single prompt
- Slack: AI monitors channels, answers questions from your knowledge base, posts updates automatically
- CRM + ERP: AI pulls customer records, updates deal stages, generates reports from live data



# MCP in Action — A Real Business Workflow

01

**You ask Claude:**

"Summarize this week's dealer orders from Google Sheets and draft a restock email to our top 3 suppliers."

02

**Google Drive MCP fires**

AI opens your Orders sheet, filters this week's rows, calculates totals by supplier and flags low-stock SKUs

03

**AI drafts 3 emails**

Pulls supplier contacts from your CRM, writes personalized restock requests with quantities and urgency levels

04

**You review and send**

AI drops the drafts into Gmail. One click to send. Updates your tracking sheet with "PO Sent" status automatically.

# Quick Wins You Can Start This Week



## Email Drafting

Paste a dealer inquiry into ChatGPT. Ask it to draft a reply using your pricing rules and return policy. Review, send. 5 min saved per email, dozens per day.



## Report Generation

Upload last month's sales CSV. Ask AI to identify top 10 SKUs by margin, flag underperformers, and suggest which products to push next quarter.



## SOP Docs

Describe your warehouse process out loud using Whisper Flow. AI turns your voice into a step-by-step SOP with checklists. Done in 10 minutes.

## SECTION 03

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# PROMPT ENGINEERING

The #1 skill that determines your output quality

~30 minutes

# The Prompt Formula



## Intent (WHY)

Why are you building this? Personal learning project or production product? Get super clear on your purpose before anything else.



## Context (WHAT)

What are you building? Describe the user experience, the business logic, the features. More detail here = better output.



## Process (HOW)

How should the AI interact with you? What steps should it follow? Define the workflow you want it to execute.



## Outcome (DONE)

What does "done" look like? Define testable success criteria so the AI can verify its own work.

# The Context Layering System

01

## **Layer 1: Role Context (WHO)**

Establish the AI's expertise before giving the task

02

## **Layer 2: Situation Context (WHAT)**

The specific scenario this expert needs to understand

03

## **Layer 3: Task Definition (DO)**

What exactly should the AI create or build?

04

## **Layer 4: Execution Parameters (HOW)**

Constraints, tech stack, and approach guidelines

05

## **Layer 5: Success Criteria (DONE)**

Verifiable completion standards — what 'finished' looks like

# The Three-Layer Context Architecture

01

## **Foundation Layer (Persistent)**

Role, expertise, communication style — stays the same across sessions. This becomes your AGENTS.MD.

02

## **Situation Layer (Task-Specific)**

Current scenario, goals, relevant background — changes per project. "Our SaaS just launched auto-reminders."

03

## **Instruction Layer (Per-Request)**

What to do right now, format requirements, constraints — changes each time. "Write an adoption email."



# Token Efficiency — Say More With Less

## BLOATED (67 TOKENS)

- "I would really appreciate it if you could please help me by writing a comprehensive and detailed professional business email..."
- Redundant: "professional and business-appropriate"
- Vague: "some marketing work or projects"
- Critical requirements buried at the end where AI forgets them

## THE 4-STEP TOKEN AUDIT

- Step 1: Eliminate fluff — remove please, I would like, comprehensive, detailed
- Step 2: Combine redundant info — "professional and business-appropriate" → "professional"
- Step 3: Use precise language — "marketing projects" not "some marketing"
- Step 4: Front-load critical info — non-negotiables in the first 25% of your prompt

# The Ambiguity Audit

Most prompts fail before AI sees them. Run this audit: (1) Circle every descriptor, (2) Ask "could this mean 5 things?", (3) Replace with specific criteria, (4) Test: could a stranger follow exactly?

- "Professional" → "Formal tone, no contractions, addressed to C-suite"
- "Clean code" → "TypeScript strict, functions under 20 lines, JSDoc comments"
- "Engaging" → "Opens with a question, uses 2nd person, reading level grade 8"
- "Make it better" → "Increase clarity by using simpler words and shorter sentences"



# The Example Engine — Few-Shot Learning

Instead of describing what you want, show it. Give AI 2-3 examples of perfect output and it learns the pattern. This is called few-shot learning — and it's the fastest way to get consistent, high-quality results without fine-tuning a model.

- Use examples when: complex formatting, specific tone, edge cases need handling
- Skip examples when: task is straightforward or you want creative variety
- The 3-step framework: show input → show desired output → explain what makes it good
- Key rule: 2-3 diverse examples beat 10 similar ones — show the range, not just the ideal



# Constraints Improve Results

## BOUNDARY CONSTRAINTS (DON'T)

- Define what NOT to do — narrows the field
- "Avoid technical jargon" — limits vocabulary
- "Don't exceed 300 words" — enforces conciseness
- "No direct sales language" — shapes tone

## CREATIVE CONSTRAINTS (DO)

- Force specific innovation within limits
- "Include exactly one personal story" — adds depth
- "Start each paragraph with a question" — drives engagement
- "Use only analogies from cooking" — creates uniqueness

# Format Engineering — Structure Is Function

## WEAK SPECIFICATION

- "Make it professional and well-organized"
- "Write a brief report"
- "Give me a summary"
- AI defaults to generic structure — guesses your format

## STRONG SPECIFICATION

- "Exec Summary (3 bullets, 20 words each), Analysis (numbered), Recs (prioritized with timeline)"
- "Meeting Prep: Objective (1 line), Key Points (3-5 bullets), Data (table), Action Items (priority)"
- "IF audience=execs THEN 3 bullet summary; IF technical THEN methodology + data tables"
- Format IS function — structure determines usability more than substance

# The 4-Dimension Role Model



## Domain Expertise

Industry knowledge: "10 years in consumer electronics distribution." Tells AI what world it lives in.



## Functional Expertise

Specific skills: "Specializes in inventory optimization and demand forecasting." Activates deep patterns.



## Audience Expertise

Who they serve: "Communicates with non-technical dealers and warehouse staff." Shapes language and depth.



## Approach Expertise

Philosophy: "Data-driven, conservative estimates, always provides confidence levels." Defines HOW it thinks.

# Building Reusable Context Documents

01

## **Brand Context Doc**

Company overview, unique positioning, voice guidelines, dos/don'ts — persistent across every AI interaction

02

## **Customer Context Doc**

Personas, pain points, language they use, objections — so AI writes TO your audience, not at them

03

## **Format Context Doc**

Templates, structures, examples of good output — defines what 'done right' looks like for your business

04

## **Process Context Doc**

Workflows, approval chains, brand standards — maps directly to AGENTS.MD in the next section

## SECTION 04

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# YOUR DEVELOPMENT TOOLKIT

Agents, Skills, MCPs, and the tech stack

~25 minutes



# The Tech Stack for Every Project



## Vercel + Next.js

Free hosting platform. Next.js gives you frontend and backend in one codebase. Deploy with a single push to GitHub.



## Supabase + Prisma

PostgreSQL database (Supabase) with a type-safe bridge (Prisma ORM). Free tier is generous. Your data layer.



## GitHub

Google Drive for your code. Version control, collaboration, and deployment pipeline. Commit after every chunk of work.

# AGENTS.MD — Your Agent's Operating System

This file is your agent's persistent memory. It reads this first and uses it to understand your project, your rules, and how to work. Think of it as the instruction manual you'd give a new team member on day one.

- Scope + Reading Order — what files to read first
- Non-Negotiables — explicit DOs and DON'Ts
- Commands by Intent — common tasks and how to handle them
- Security & Secrets Policy — what never gets committed



# AGENTS.MD Components (1 of 2)

01

## 1. Scope + Reading Order

Project name, tech stack, and which files to read in what order

02

## 2. Non-Negotiables

Explicit DOs (TypeScript strict, error handling) and DON'Ts (no secrets in code)

03

## 3. Commands by Intent

"Add a new state" → Update schema, migration, API route, etc.

04

## 4. CLI & MCP Tooling

Required CLI tools (Prisma, Vercel) and MCP servers (Context7, Supabase)

# AGENTS.MD Components (2 of 2)

01

## 5. Security & Secrets

Environment variables, validation rules, rate limiting policies

02

## 6. Planning / Execution Loop

Read files → identify changes → consider edge cases → write tests → implement

03

## 7. Definition of Done Checklist

No TS errors, all tests pass, mobile responsive, loading/error states, committed to git

# Skills & MCP Tools — Supercharging Your Agent



## Skills

Reusable instruction packages that make AI agents perform specific workflows reliably. Phase-plan, phase-implement, phase-review, and more.



## Context7

Pulls live, up-to-date API documentation so your agent never uses outdated patterns. Essential for any project with integrations.



## MCP Tools

Model Context Protocol servers that give your agent live capabilities — database access, browser automation, API documentation lookup.



## Jam.dev

Captures screenshots, console logs, and network requests in one click. Share with your AI agent for instant bug diagnosis.

# Codex vs. Claude Code

## CODEX (OPENAI)

- Longer context retention
- Can one-shot massive tasks for hours
- Included with ChatGPT Plus subscription
- Best for: gap analysis, implementation, testing

## CLAUDE CODE

- Faster agentic execution speed
- Higher quality reasoning per step
- Great plugin ecosystem
- Best for: planning, architecture, code review

# The Dual-Terminal Workflow

01

## Plan with Claude Code

Use plan mode to create a solid phase plan with `$phase-plan` skill

02

## Gap-Check with Codex

Fresh chat with `$phase-gaps` to identify weak spots before building

03

## Implement with Claude Code

Go back, `/compact`, then `$phase-implement` to execute

04

## Review with Codex

`$phase-review` to validate, get next steps, and ensure production-readiness

SECTION 05

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# PUTTING AI TO WORK

From theory to practice — real business tasks with AI

~30 minutes



# Your AI Workflow Toolkit



## ChatGPT / Claude

Your primary AI assistant. Use for drafting, analyzing, brainstorming, and processing any text-based task. Free tiers available for both.



## MCP Connections

Plug AI into Google Drive, Gmail, Slack, your CRM. AI reads and acts inside your real tools — no copy-pasting between apps.



## Creative Tools

Midjourney for images, Higgsfield for video ads, Whisper Flow for voice-to-text. Generate marketing assets in minutes, not days.

# The 3-Step AI Business Workflow

01

## **Prepare Your Context**

Gather the inputs: the email thread, the spreadsheet, the brief. The more context AI has, the better the output.

02

## **Prompt with the Formula**

Apply Intent + Context + Process + Outcome. Be specific. Use the ambiguity audit before you hit send.

03

## **Review, Refine, Deploy**

AI gives you a strong first draft. You refine it with follow-up prompts. Then use it — send the email, save the report, share the doc.

# Exercise 1: Draft a Dealer Email

Open ChatGPT or Claude right now. We'll draft a professional dealer response together using the prompt formula. Paste the scenario and watch AI work.

- Scenario: A dealer emails asking about bulk pricing on 500 units of a new product line
- Apply the formula: Intent (retain dealer) + Context (pricing tiers, stock) + Process (format) + Outcome (reply ready to send)
- Add constraints: under 150 words, professional but warm, include next steps
- Refine: ask AI to "make it more direct" or "add urgency about limited stock"



# Exercise 2: Analyze a Sales Report

Upload a spreadsheet (or paste data) into ChatGPT. Ask it to find insights you'd normally spend hours digging for. AI turns raw data into decisions.

- Upload your CSV or paste a table of last month's sales data
- Prompt: "Identify top 5 products by margin, flag any with declining trend, suggest 3 actions"
- Ask follow-ups: "Which dealer accounts are growing fastest?" "What should we reorder?"
- Export: ask AI to format findings as a summary email to your team



# Exercise 3: Create an SOP from Scratch

Describe any business process out loud or in text. AI turns your explanation into a structured, step-by-step Standard Operating Procedure with checklists — ready to share with your team.

- Pick a real process: new dealer onboarding, returns handling, inventory recount
- Describe it conversationally: "When a new dealer applies, first we check their business license..."
- AI structures it: numbered steps, responsible parties, checklists, exception handling
- Refine: "Add a quality check step after step 3" or "Include estimated time per step"



# Exercise 4: Generate Marketing Content

Use AI to create product descriptions, social posts, and email campaigns. Feed it your brand voice doc and watch it produce on-brand content at scale.

- Product description: paste specs, ask for a compelling listing for your website and catalog
- Social media: "Write 5 LinkedIn posts promoting our new TV line to B2B buyers"
- Email campaign: "Draft a 3-email sequence to re-engage inactive dealers"
- Pro tip: give AI an example of content you love and say "match this tone and style"



# Tips for Getting Great Results Every Time



## Iterate, Don't Restart

If the first output isn't right, don't start over. Say "make it shorter", "more formal", or "add a table". Each follow-up sharpens the result.



## Save Your Best Prompts

When a prompt works perfectly, save it. Build a prompt library for your team. These become reusable templates for every common task.



## Always Review Before Sending

AI is a draft machine, not a decision-maker. Always review for accuracy, tone, and sensitive information before sharing externally.

## SECTION 06

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# WHAT'S POSSIBLE NEXT

From business workflows to full custom applications

~10 minutes



# WholesaleTech Hub — What AI Can Build

Everything you learned today — prompting, context docs, MCP tools — scales up to building full software. Here's a wholesale portal built entirely with AI agents using the same techniques.

- Full dealer portal: registration, catalog browsing, bulk ordering, shipment tracking
- Admin dashboard: inventory management, dealer approvals, analytics
- Built with AI agents in days, not months — no traditional development team needed
- Same prompt formula + context docs + MCP tools, just applied to a bigger project



# Your Growth Path

01

## **Today: AI Business Workflows**

Draft emails, analyze data, create SOPs, generate content — using ChatGPT and Claude with good prompts

02

## **Next Week: Connect Your Tools**

Set up MCP connections to Google Drive, Gmail, Slack. AI starts working inside your real systems

03

## **Next Month: Automate Repeating Tasks**

Build workflows that run on triggers — new email arrives, AI drafts reply; weekly report auto-generates every Monday

04

## **Next Quarter: Build Custom Apps**

Use AI agents to build full software products tailored to your business — dealer portals, inventory systems, customer dashboards

## SECTION 07

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# WRAPPING UP

Key takeaways and next steps

~10 minutes

# Key Takeaways

1

## **Prompt quality determines output quality**

Use Intent + Context + Process + Outcome. Be specific, eliminate ambiguity, front-load critical info.

2

## **AGENTS.MD is your agent's operating system**

Define scope, non-negotiables, commands, security, and success criteria before writing any code.

3

## **The stack is simple: Next.js + Supabase + Prisma + Vercel**

This combo handles 90% of projects. Start simple, split later if needed. Declare your stack upfront.

4

## **Build in phases, not all at once**

Plan → Gaps → Implement → Review. Commit at every checkpoint. Use the dual-terminal system.

# Your Agent-Building Roadmap



## Level 1: Workflows

Connect prompts into systematic business processes. Start with: email drafter, report generator, content pipeline. Use context docs + prompt formula.



## Level 2: Multi-Agent

Design AI teams with specialized roles.  
Research AI feeds  
Strategy AI feeds  
Implementation AI. The dual-terminal workflow is your entry point.



## Level 3: Adaptive

Self-optimizing systems that improve without intervention. Agents that monitor their own output quality, learn from feedback, and auto-correct.

ZERO TO AGENT

# Start Building Today

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