



# PROMPT ENGINEERING

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# Prompting for Developers & BA

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# **Surendra Panpaliya: AI Visionary**

## **Extensive Digital Transformation Experience**

With over 25 years in IT, his expertise drives digital transformation and technological innovation for global organisations.

## **Empowering IT Professionals**

He has mentored and trained more than 25,000 IT professionals, equipping them with advanced technology skills and knowledge.

## **Advancing AI Adoption**

Through collaborations with numerous multinational firms, he has promoted the adoption of AI-driven strategies across diverse industries.

# Advanced Prompt Techniques for Business Analysts and Software Developers

Enhancing productivity through strategic prompt engineering

# Today's Discussion Outline

- Introduction to Advanced Prompt Engineering
- Understanding Task Chaining in Prompt Engineering
- Practical Applications of Task Chaining
- Role-Based Prompting: Principles and Benefits
- Designing Effective Role-Based Prompts
- Integrating Prompts into DevOps Workflows
- Case Studies: Prompt Engineering in DevOps
- Best Practices and Common Pitfalls
- Tools and Platforms for Advanced Prompt Engineering
- Summary and Next Steps

# Introduction to Advanced Prompt Engineering

# Defining prompt engineering and its significance



## Concept of Prompt Engineering

Prompt engineering is the process of designing inputs for AI models to generate accurate and relevant responses.



## Importance in Automation

This technique helps automate complex tasks by guiding AI to produce useful outcomes efficiently.



## Enhancing Decision-Making

Prompt engineering improves business and software decisions by providing precise AI-generated insights.

# Why advanced techniques matter in business and development



## Handling Complex Scenarios

Advanced techniques allow businesses to address complex problems with innovative solutions effectively and efficiently.

## Improving Workflow Efficiency

Utilizing advanced methods streamlines processes, saving time and resources while enhancing productivity.

## Reducing Errors

Advanced techniques minimize mistakes by ensuring accuracy and consistency in business and development tasks.

## Enabling Seamless Collaboration

These techniques foster better teamwork and communication across diverse teams and departments.

# **Overview of key concepts: task chaining, role-based prompting, DevOps integration**

## **Task Chaining Workflows**

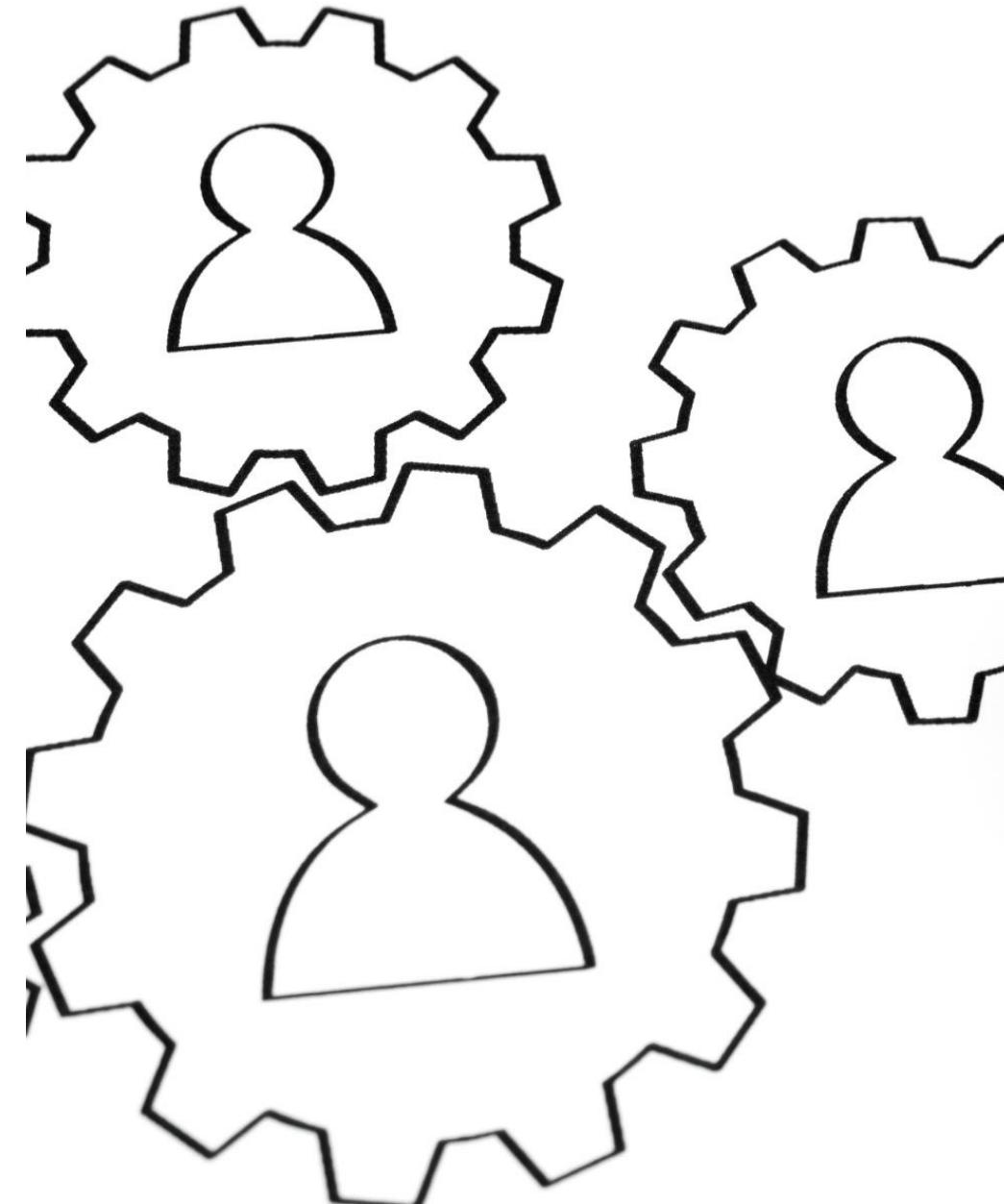
Task chaining enables the execution of complex multi-step workflows by linking tasks sequentially for efficient automation.

## **Role-Based Prompting**

Role-based prompting customises interactions to suit different stakeholders, improving relevance and engagement in workflows.

## **DevOps Pipeline Integration**

Integrating prompt engineering into DevOps pipelines boosts automation, compliance, and continuous delivery efficiency.



# Understanding Task Chaining in Prompt Engineering

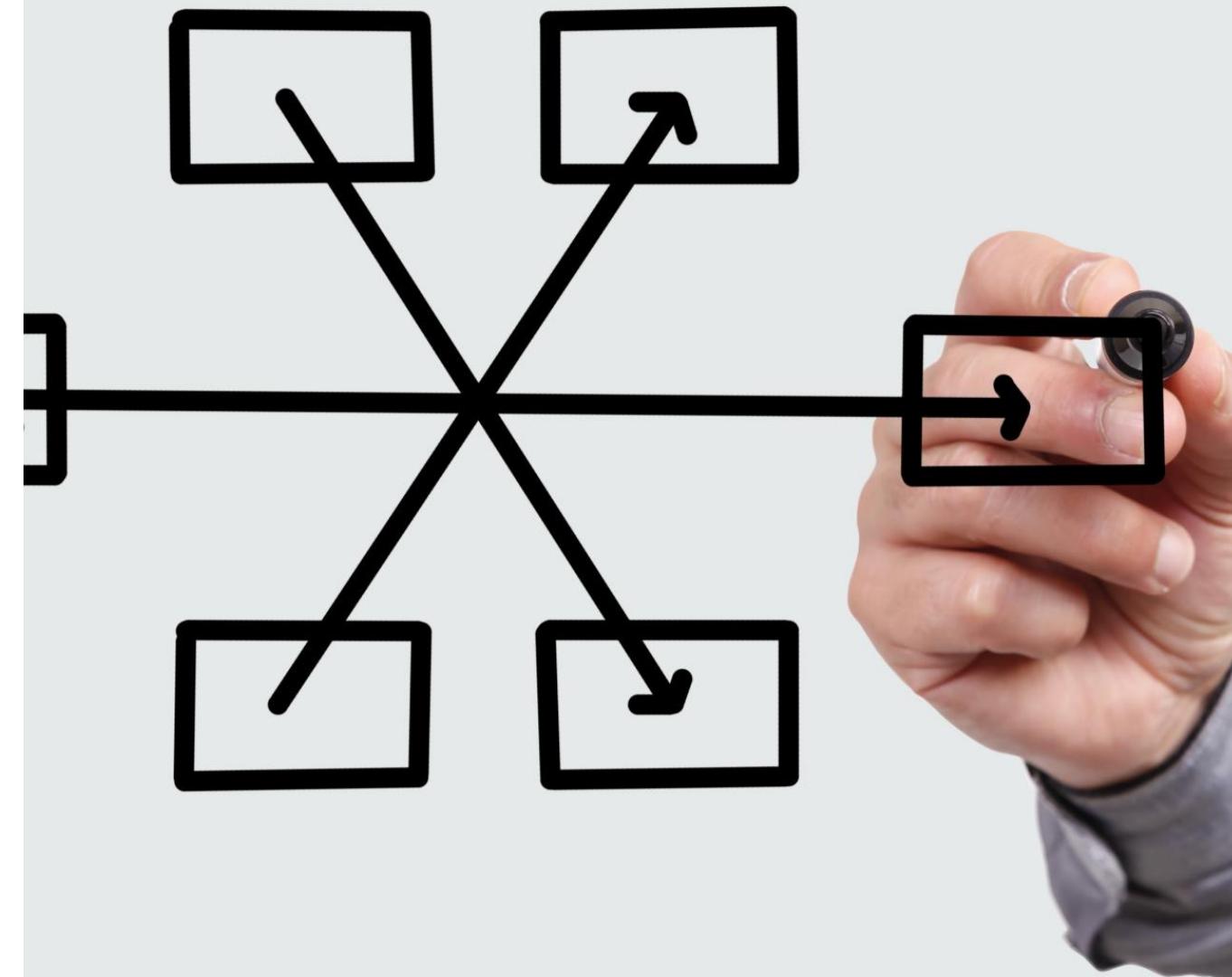
# What is task chaining and when to use it

## Definition of Task Chaining

Task chaining links prompts sequentially where each output informs the next input.

## Purpose of Task Chaining

It supports multi-step reasoning and complex data processing effectively.



# Designing multi-step prompt workflows

## Breaking Down Tasks

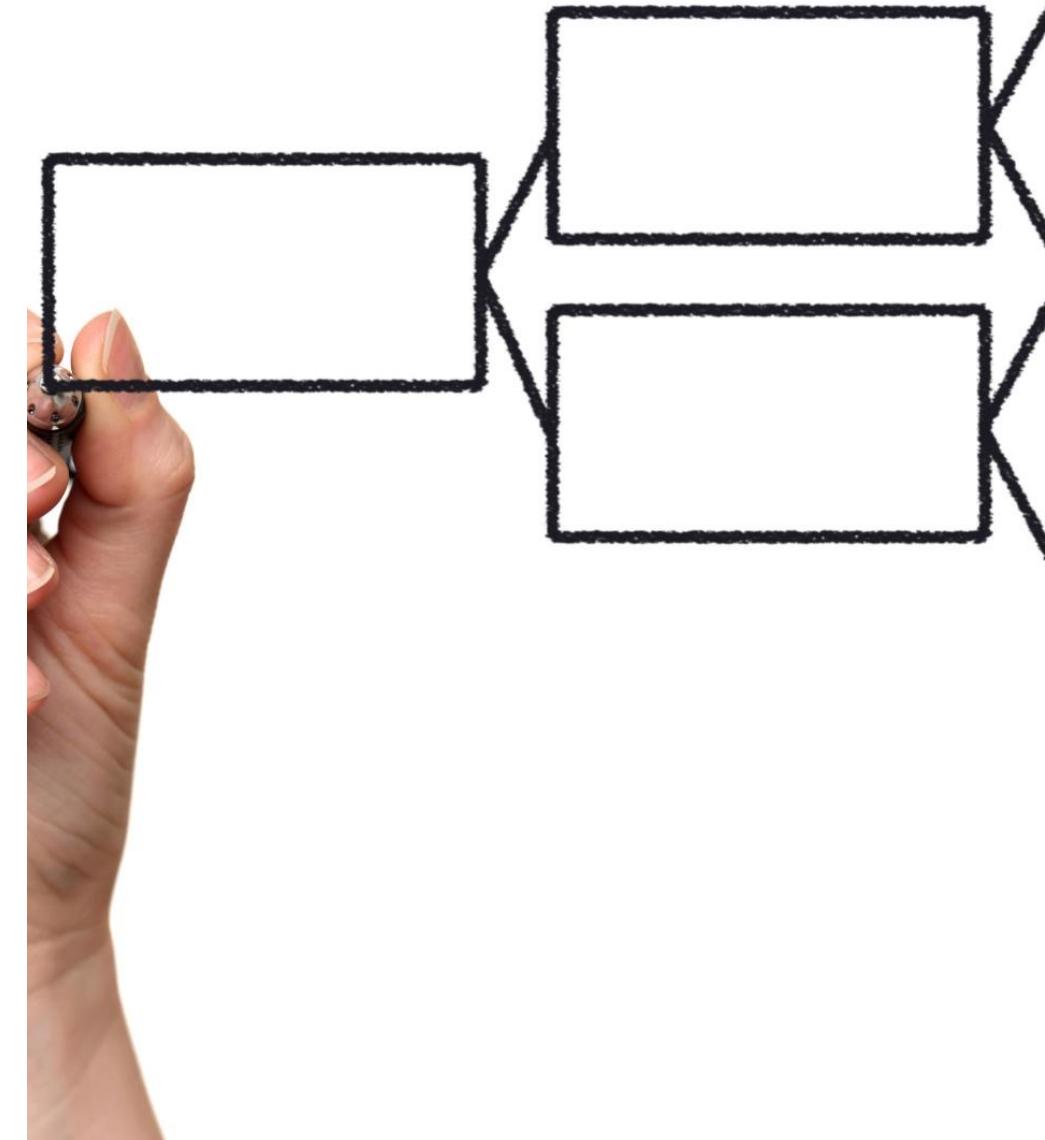
Complex tasks should be divided into smaller, manageable steps to improve clarity and ease of execution.

## Logical Output Flow

Outputs must flow logically between prompts to maintain coherence and ensure the accuracy of results.

## Ensuring Accuracy

Clear and structured workflows help achieve precise and reliable outputs by minimizing errors.



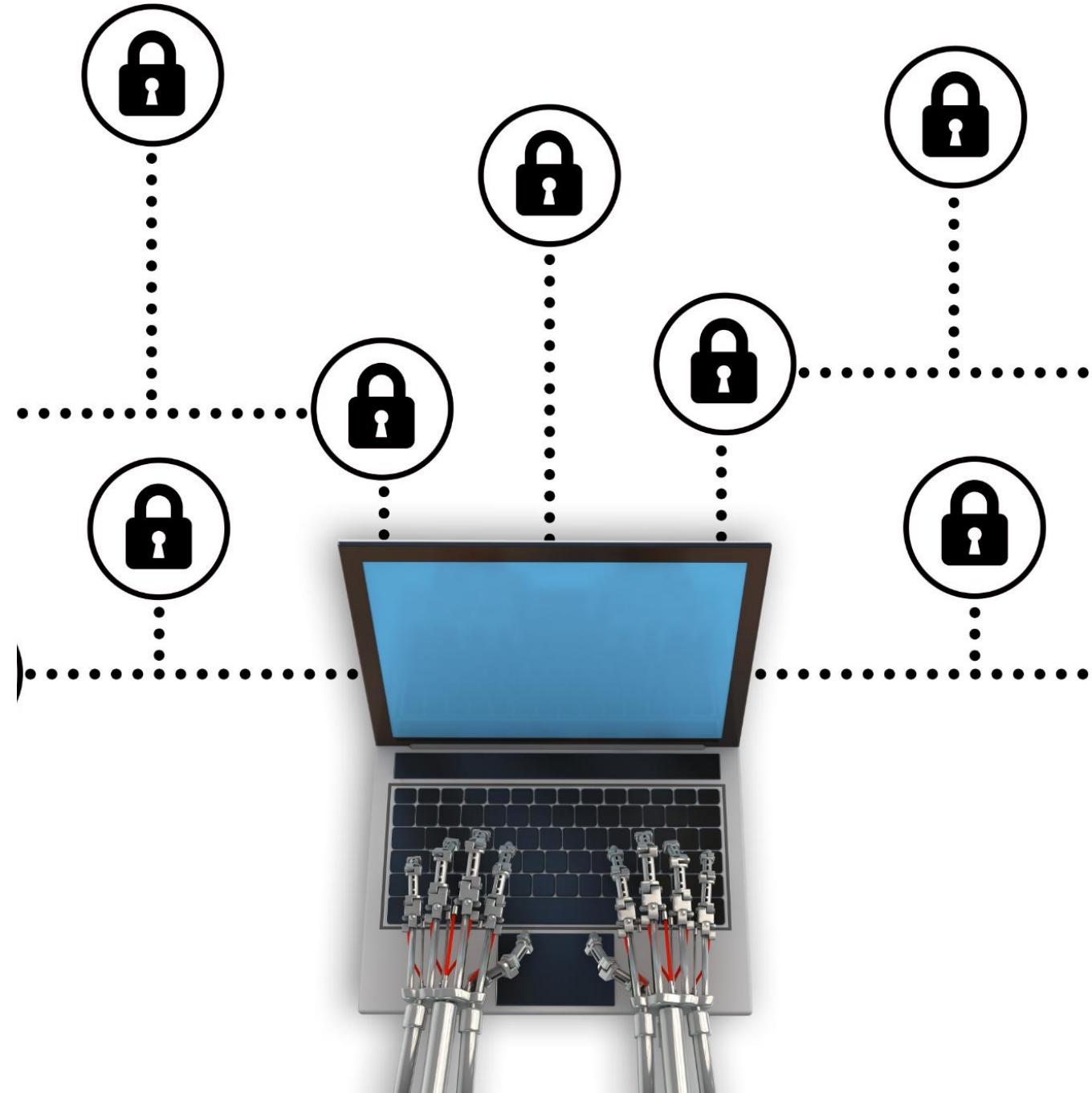
# Error handling and validation in chained prompts

## Importance of Validation

Validation checks identify anomalies early, ensuring data integrity throughout chained prompts.

## Role of Error Handling

Error handling allows corrective actions, maintaining flow stability and preventing failures.



# Practical Applications of Task Chaining

# Use cases for business analysts: complex data extraction, report generation



## Complex Data Extraction

Task chaining enables business analysts to extract detailed and comprehensive data insights efficiently.



## Automated Report Generation

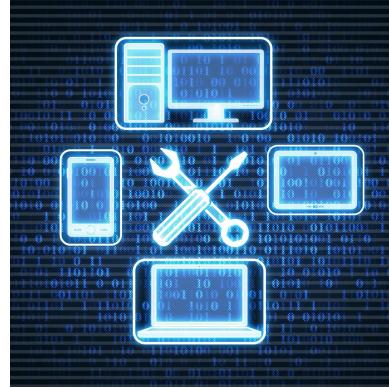
Automation of report creation helps streamline workflows and ensures consistent and accurate outputs.



## Improved Analysis Accuracy

Using task chaining reduces errors and enhances the accuracy of business analysis tasks.

# Use cases for software developers: automated testing, code generation



## Automated Testing

Task chaining enables developers to automate test cases, improving accuracy and saving time during software validation.



## Code Generation

Developers use task chaining to generate code snippets, accelerating coding and reducing manual effort.



## Accelerated Development

Task chaining helps streamline development cycles, enhancing productivity and speeding up software delivery.



# Best practices for maintaining workflow clarity and traceability

## Clear Documentation

Maintain thorough and easy-to-understand documentation to ensure workflow clarity and facilitate troubleshooting.

## Modular Workflow Design

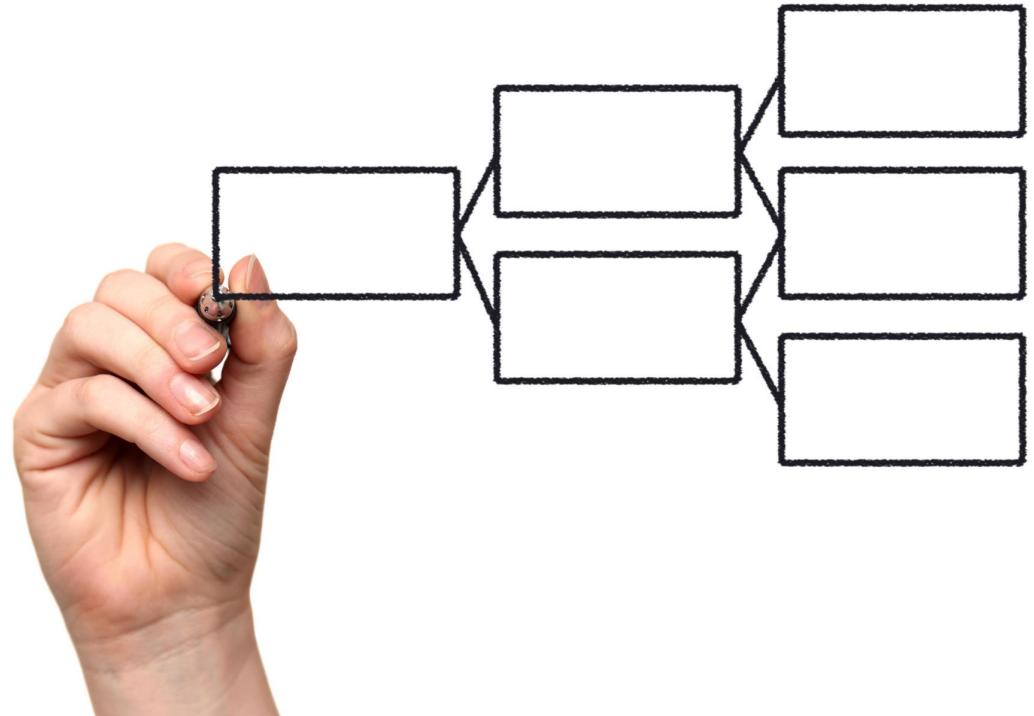
Design workflows in modular components to enhance clarity, reusability, and ease of maintenance.

## Logging Outputs at Each Step

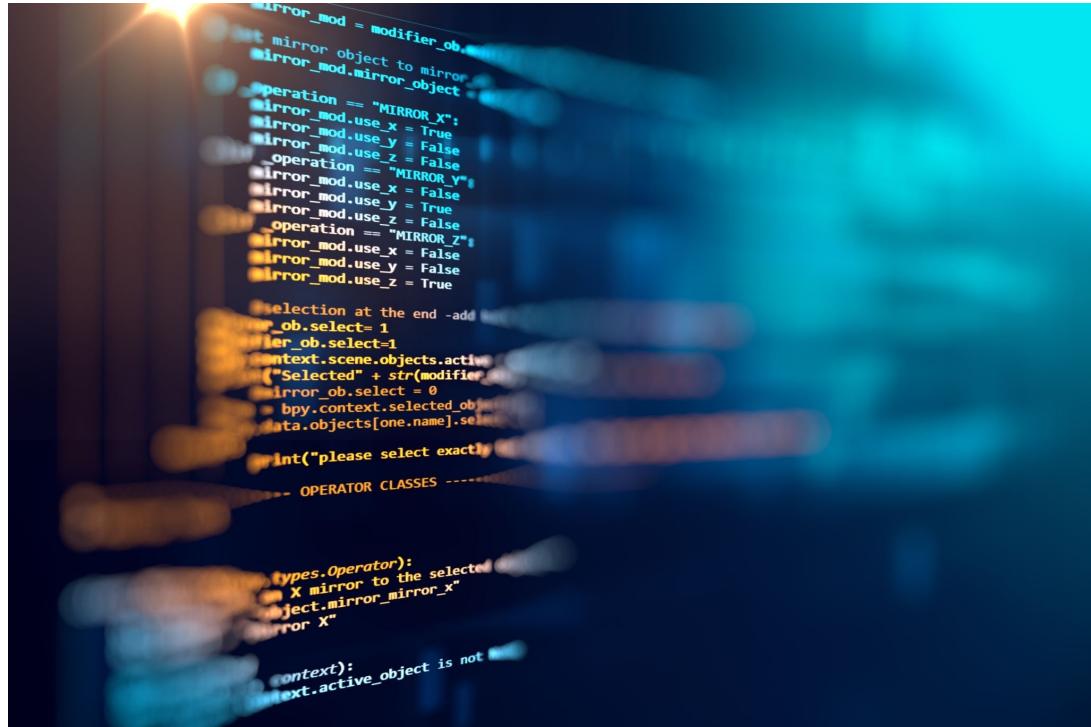
Log outputs systematically at every workflow step to improve traceability and error tracking.

# Understanding Task Chaining

- Task chaining involves linking multiple AI prompts for complex, multi-step processes.
- It improves accuracy and efficiency by breaking down tasks into manageable steps.
- Enables iterative refinement and validation of outputs at each stage.
- Supports collaboration between Developers and Business Analysts effectively.
- Facilitates automation of workflows in coding and analysis tasks.



# Developer Case Study: REST API Development



- Plan: Define API endpoints and database schema using a planning prompt.
- Draft: Generate FastAPI boilerplate code with PostgreSQL integration.
- Review: Refactor and optimize code based on performance and style criteria.
- Finalise: Produce deployment scripts and documentation for the API.
- Each step uses targeted prompts to build on previous outputs.



# Business Analyst Case Study: Requirement Transformation

- Convert meeting notes into clear, structured user stories.
- Create acceptance criteria and define traceability links.
- Summarize product requirements into backlog-ready items.
- Use iterative prompts to refine user stories and matrices.
- Enhances clarity and alignment with development teams.

# Sample Prompts for Developer Task Chain

- Plan prompt: ‘List REST API endpoints for user management with PostgreSQL schema.’
- Draft prompt: ‘Generate FastAPI code scaffold based on planned endpoints.’
- Review prompt: ‘Refactor code for performance and Pythonic style.’
- Finalise prompt: ‘Create deployment script and usage documentation.’
- Expected outputs improve cumulatively through each step.





# **Sample Prompts for BA Task Chain**

- Initial prompt: ‘Extract user stories from the following meeting notes.’
- Refinement prompt: ‘Add acceptance criteria and priority to each user story.’
- Traceability prompt: ‘Map user stories to product requirements in a matrix.’
- Backlog prompt: ‘Format user stories as backlog items ready for development.’
- Stepwise refinement ensures clarity and traceability.

# Role-Based Prompting: Principles and Benefits



# Defining role-based prompting

## Customised Input Prompts

Role-based prompting adapts prompts based on users' roles to enhance interaction and output quality.

## Improved Relevance and Usability

Tailoring prompts to user knowledge and goals increases the relevance and usefulness of the system responses.

# Tailoring prompts for different stakeholders (analysts, developers, QA, managers)



**Understanding Stakeholder Needs**

- Design prompts that address the distinct requirements of analysts, developers, QA teams, and managers effectively.



**Contextual Prompt Customization**

- Customize prompt outputs to provide relevant and actionable information tailored to each stakeholder's role.



**Enhancing Communication**

- Use tailored prompts to improve clarity and communication between teams with varying perspectives.



# Enhancing collaboration and communication

## Role-Based Communication

Role-based prompts help tailor communication according to team members' expertise and responsibilities.

## Improved Team Alignment

Focused prompts lead to better alignment and understanding across different teams and departments.

# Designing Effective Role-Based Prompts



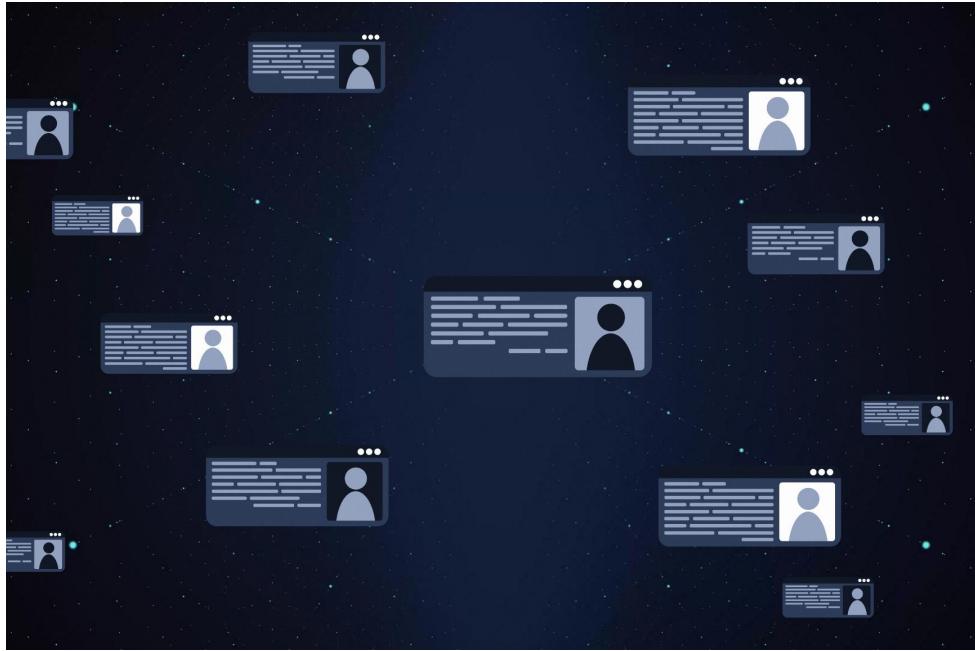
# Analysing user roles and requirements

## User Role Identification

Recognising different user roles is essential for tailoring prompt content accurately.

## Requirement Analysis

Understanding specific requirements ensures outputs align with users' expectations and context.



# Structuring prompts for clarity and precision

## **Clear Language**

Using simple and direct language helps AI understand prompts accurately.

## **Defined Goals**

Setting specific objectives guides AI to produce relevant outputs.

## **Contextual Cues**

Providing background information helps AI interpret prompts effectively.



# Examples: requirements gathering, code review, documentation

## Requirements Gathering

Prompts assist in collecting detailed and clear software requirements to ensure project success.

## Code Review

Tailored prompts help in evaluating code quality and identifying potential issues during review.

## Documentation Generation

Prompts generate precise and structured documentation to support software maintenance and usage.

# Integrating Prompts into DevOps Workflows

# Where prompt engineering fits in the DevOps lifecycle



## Planning Integration

Incorporating prompts during planning improves clarity and alignment among teams early in the DevOps cycle.

## Build and Testing

Prompts assist automation in build and testing phases, increasing efficiency and reducing errors.

## Deployment and Monitoring

Using prompts during deployment and monitoring enables smoother releases and effective issue detection.

# Automating routine tasks with prompts

## Automated Summaries

Prompts help create build summaries automatically, speeding up reporting and reducing manual effort.

## Incident Analysis Automation

Prompts facilitate automated incident analysis, improving accuracy and response times.

## Documentation Updates

Routine documentation updates are streamlined through prompts, ensuring consistency and saving time.





# **Ensuring compliance and security in prompt- enabled workflows**

## Compliance Integration

Embedding compliance checks within prompts ensures workflows adhere to regulatory standards and policies.

# Security Protocols

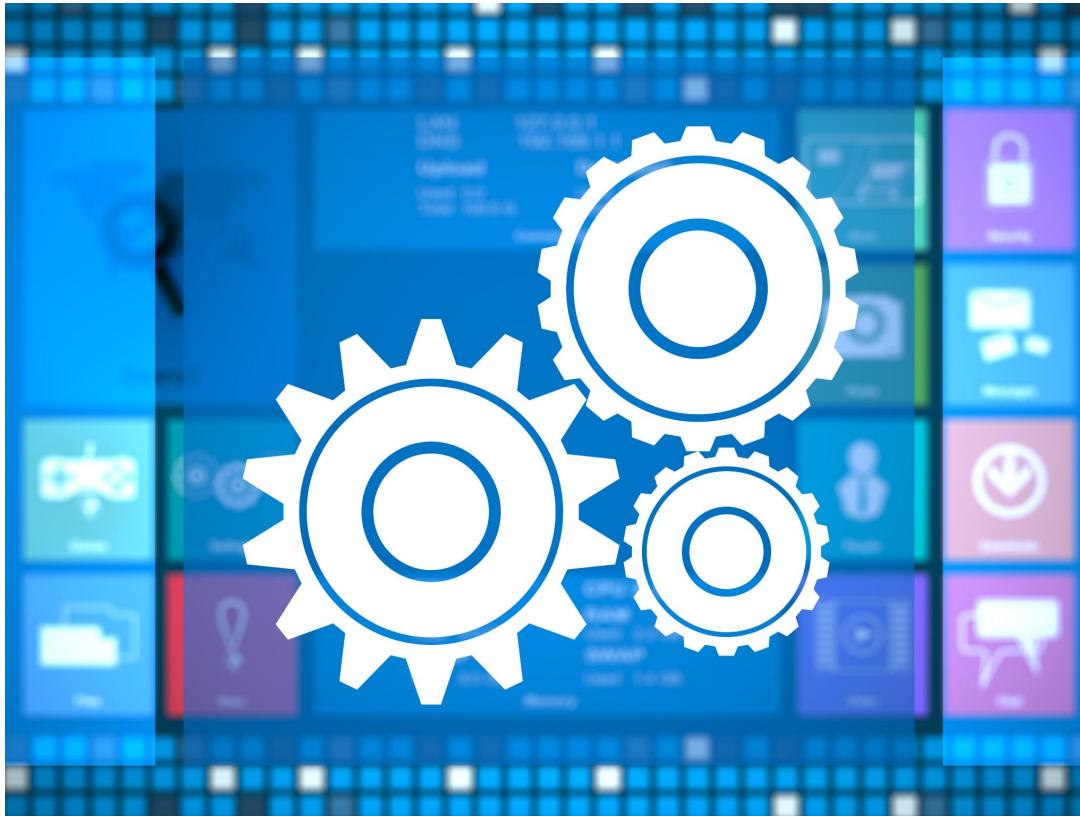
Security protocols within prompts protect sensitive data and prevent unauthorized access during workflow execution.

## Governance Maintenance

Prompt-embedded controls help maintain governance by monitoring and enforcing compliance throughout processes.

# Case Studies: Prompt Engineering in DevOps

# Automating build and deployment summaries



- Automation Benefits
  - Automated summaries enhance communication by providing clear and concise build and deployment information.
- Team Transparency
  - Automation improves team transparency by keeping everyone informed about build and deployment progress.



# Incident response and root cause analysis with prompts

## Role of Prompts

Prompts help guide teams to analyse incidents rapidly and accurately for effective responses.

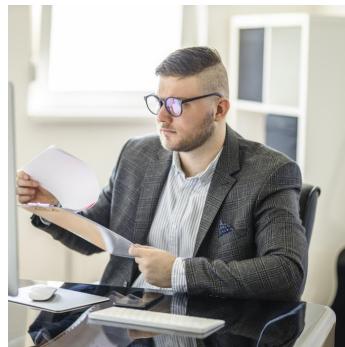
## Root Cause Identification

Identifying root causes quickly facilitates faster resolution and prevents incident recurrence.

## Continuous Improvement

Using insights from incidents and prompts leads to ongoing process improvements and risk reduction.

# Continuous documentation and knowledge sharing



## Ongoing Documentation

Continuous documentation generation keeps knowledge bases current and relevant.

## Enhanced Onboarding

Up-to-date documentation simplifies onboarding for new team members.

## Improved Collaboration

Shared knowledge bases foster better teamwork and communication.

# **Best Practices and Common Pitfalls**



# Maintaining context and avoiding ambiguity

## Retain Necessary Context

Keeping relevant information in prompts ensures accurate understanding and response generation.

## Use Clear Language

Using precise and unambiguous language prevents confusion and irrelevant outputs.



# **QUALITY CONTROL CUSTOMERS STRATEGY TESTING ANALYSIS BRAND VERIFICATION SUCCESS**

## **Testing and validating prompt outputs**

### **Importance of Regular Testing**

Regular testing ensures prompt outputs meet accuracy standards and function reliably.

### **Ensuring Output Reliability**

Validation of prompt outputs prevents errors before deployment to users.

# Adapting prompts as requirements evolve

## Continuous Revision

Regularly updating prompts helps maintain their relevance and ensures they meet current needs effectively.

## Response to Change

Adapting prompts according to evolving requirements enables sustained effectiveness over time.



# Tools and Platforms for Advanced Prompt Engineering

# Overview of leading platforms (OpenAI, Azure, AWS, etc.)

## **Robust API Support**

Leading platforms offer comprehensive APIs that enable advanced prompt engineering and customization.

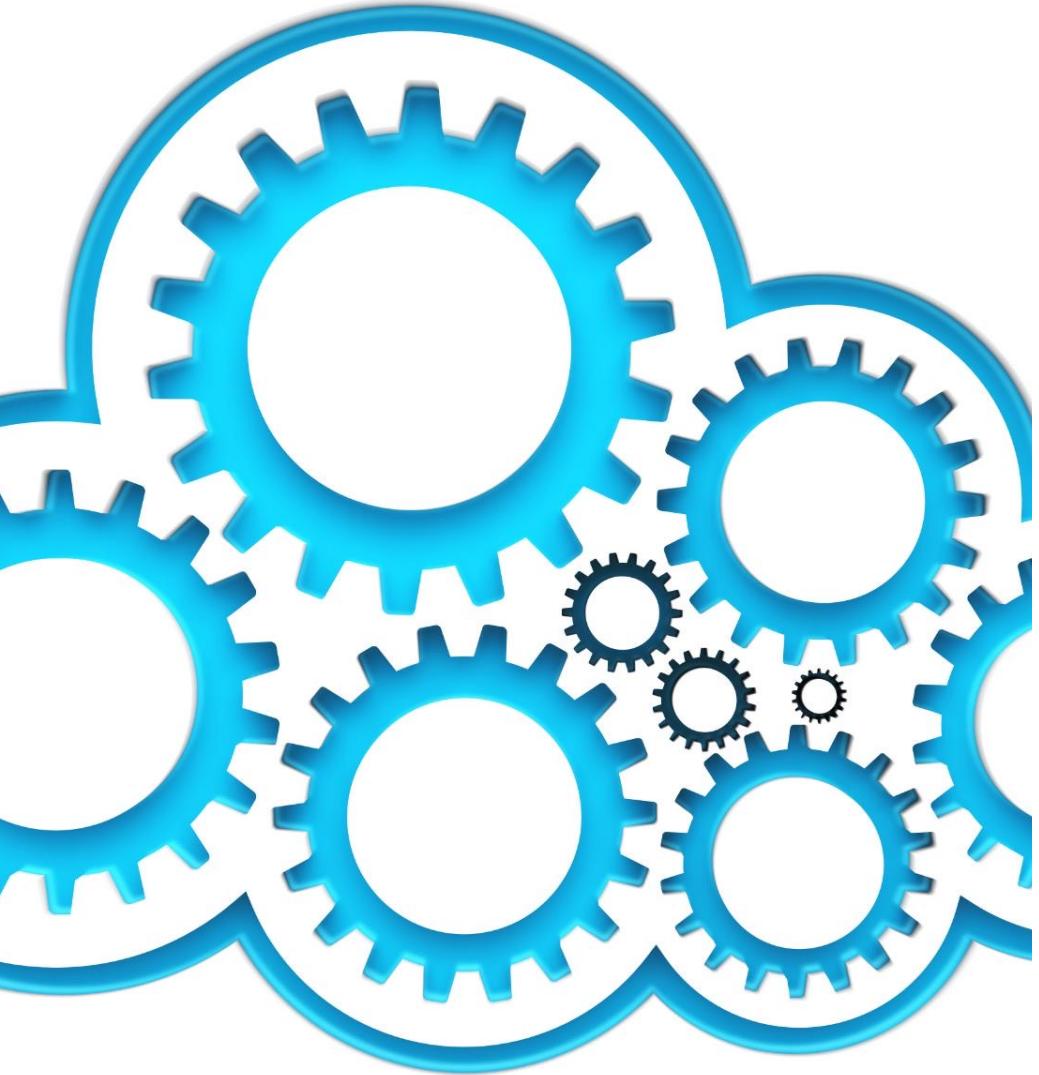
## **Feature-rich Platforms**

These platforms provide diverse features to support various AI and cloud computing needs effectively.

## **Seamless System Integration**

Integration capabilities allow embedding AI solutions into existing enterprise systems smoothly.





# Integration options for business and DevOps environments

## Flexible Integration Capabilities

Platforms provide adaptable integration options to connect various business and DevOps tools seamlessly.

## Enhancing Automation

Integration supports automation by linking disparate systems to streamline repetitive tasks.

## Improving Workflow Efficiency

Seamless integration boosts workflow efficiency by reducing manual effort and errors.

# Security and governance considerations



## Data Privacy Importance

Protecting sensitive data is essential to maintain trust and prevent breaches in enterprise systems.

## Access Control Measures

Implementing strict access controls ensures only authorized users can interact with sensitive information.

## Regulatory Compliance

Compliance with legal and industry regulations safeguards enterprises from penalties and reputational damage.

# **Summary and Next Steps**



# Key takeaways from advanced prompt techniques

## Enhanced Automation

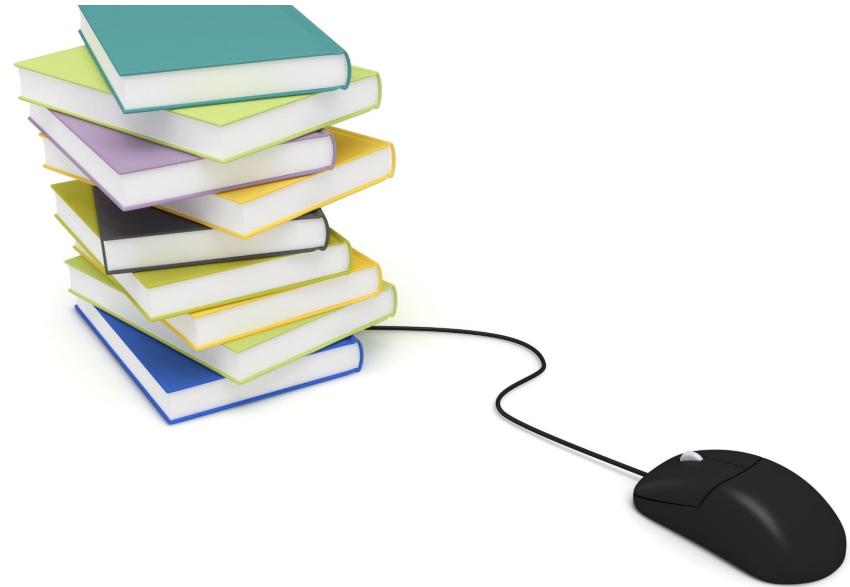
Advanced prompt engineering significantly boosts automation capabilities across various platforms and applications.

## Improved Collaboration

These techniques facilitate better collaboration among teams by streamlining communication and workflows.

## Business and DevOps Integration

Advanced prompt techniques integrate seamlessly with business and DevOps workflows to deliver improved outcomes.



# Resources for further learning

## **Official Documentation**

Use official platform documentation for accurate, detailed information and guidelines.

## **Tutorials**

Tutorials offer step-by-step guidance to help users learn new skills effectively.

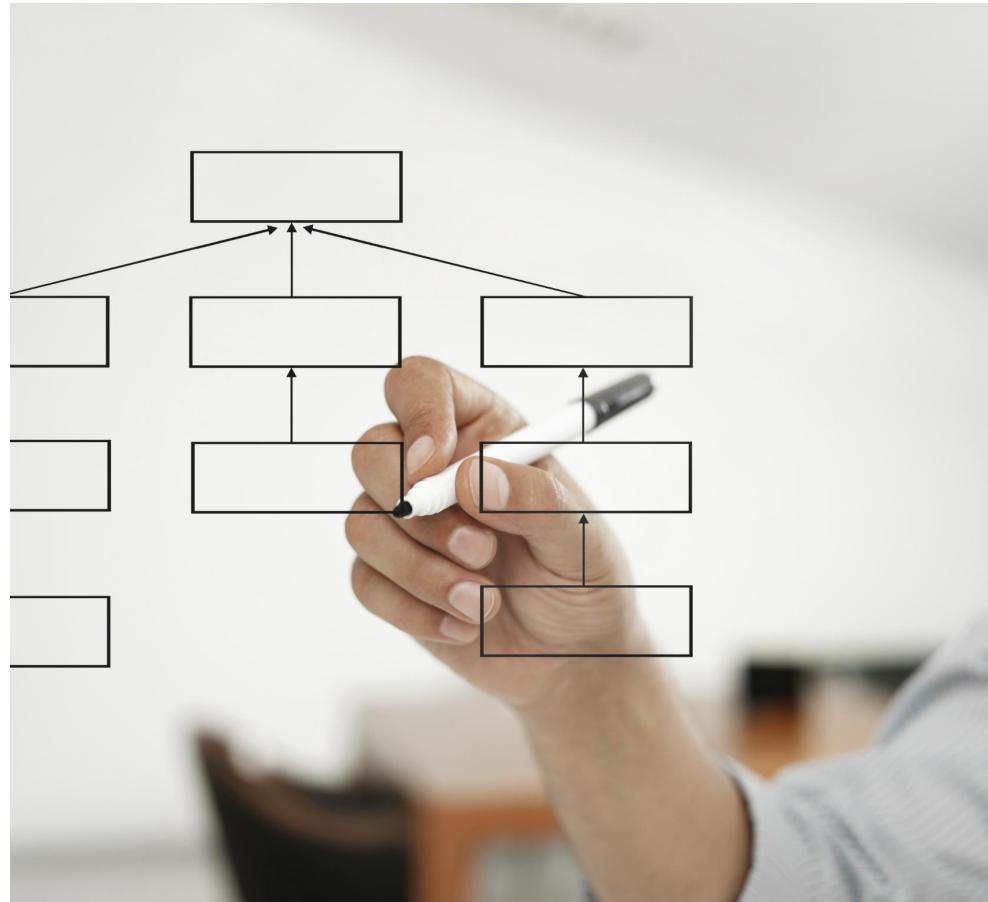
## **Community Forums**

Engage with community forums to ask questions and share knowledge with peers.

## **Advanced Courses**

Advanced courses provide deep insights and specialised knowledge for skill enhancement.

# Action plan for immediate implementation



## Identify Key Workflows

Begin by pinpointing the essential workflows that drive your operations for effective optimisation.

## Experiment with Task Chaining

Test linking tasks in sequence to improve efficiency and automate processes smoothly.

## Use Role-Based Prompts

Incorporate prompts tailored to specific roles to enhance task relevance and accuracy.

## Gradual Integration

Implement changes progressively into existing environments to ensure smooth transition and adoption.

# Conclusion

## Mastering Prompt Techniques

Advanced prompt skills enable business analysts and developers to enhance project efficiency and team collaboration.

## Driving Innovation

Utilizing advanced prompts fosters innovation, improving project outcomes and business growth.

# Developer Case Studies: Prompt Engineering in Action – Practical Applications for Code Generation and Refactoring

Exploring AI-driven techniques transforming software development workflows

# Today's Agenda Overview

- Introduction to Prompt Engineering for Software Development
- Case Study 1: Generating Boilerplate REST API Code with Structured Prompts
- Case Study 2: Refactoring Legacy Systems with AI-Powered Prompts
- Integrating Prompt Engineering into Developer Workflows
- Summary, Takeaways, and Q&A

# Introduction to Prompt Engineering for Software Development



# Defining prompt engineering in the context of software development

## Precision in Input Design

Effective prompt engineering requires crafting precise inputs to guide AI models in generating accurate and useful code.

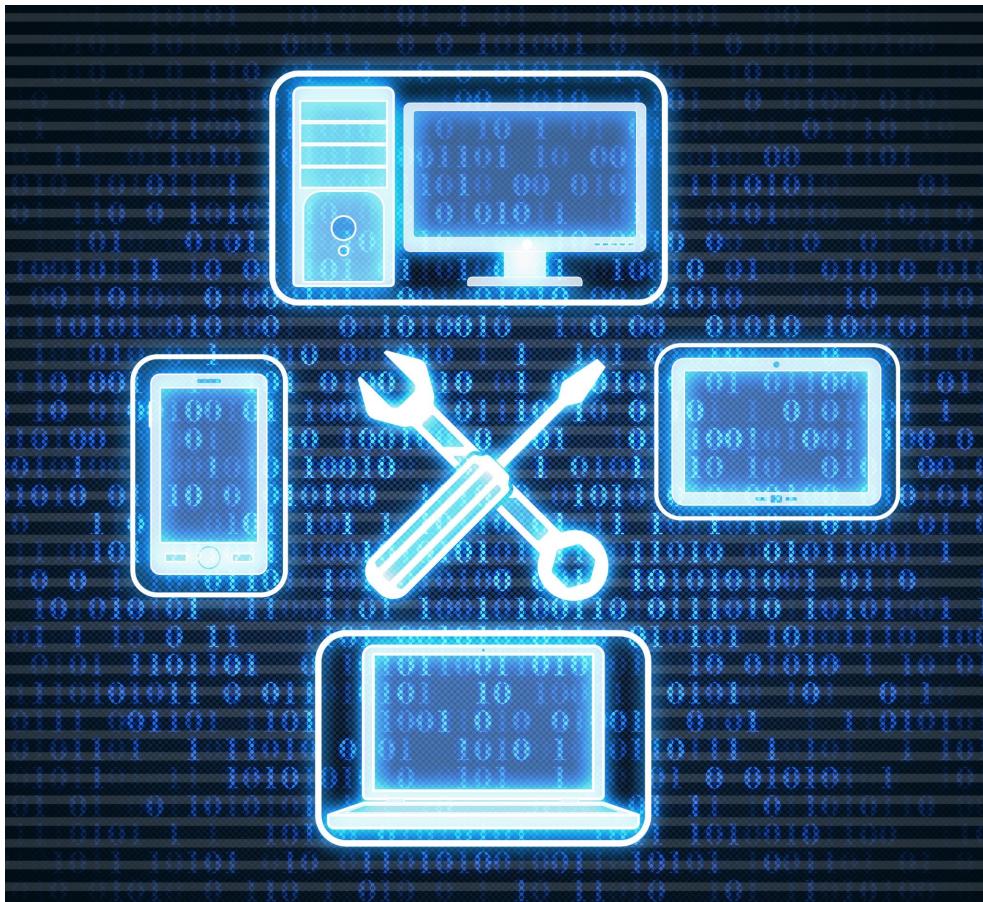
## Understanding Problem Domain

Knowledge of the problem domain is essential for creating relevant prompts that address specific software development challenges.

## Leveraging AI Capabilities

Prompt engineering balances AI strengths and limitations to enhance software coding and suggestion accuracy.

# Overview of AI-powered developer tools



## Code Completion Engines

AI-driven code completion engines help developers write code faster by suggesting relevant code snippets in real-time.

## Automated Refactoring Assistants

These AI tools assist in improving code structure and maintainability through automated refactoring suggestions.

## Test Generation Tools

AI-powered test generation tools help developers create comprehensive test cases to ensure code quality and reliability.

## Prompt Engineering Impact

Prompt engineering enhances AI tool output quality and relevance by tailoring input to specific coding tasks.

# **Benefits of prompt engineering for code generation and refactoring**

## **Increased Productivity**

Prompt engineering reduces boilerplate code, allowing developers to focus on core logic and speed up development.

## **Improved Code Quality**

Consistent style enforcement through prompts ensures cleaner, more maintainable code.

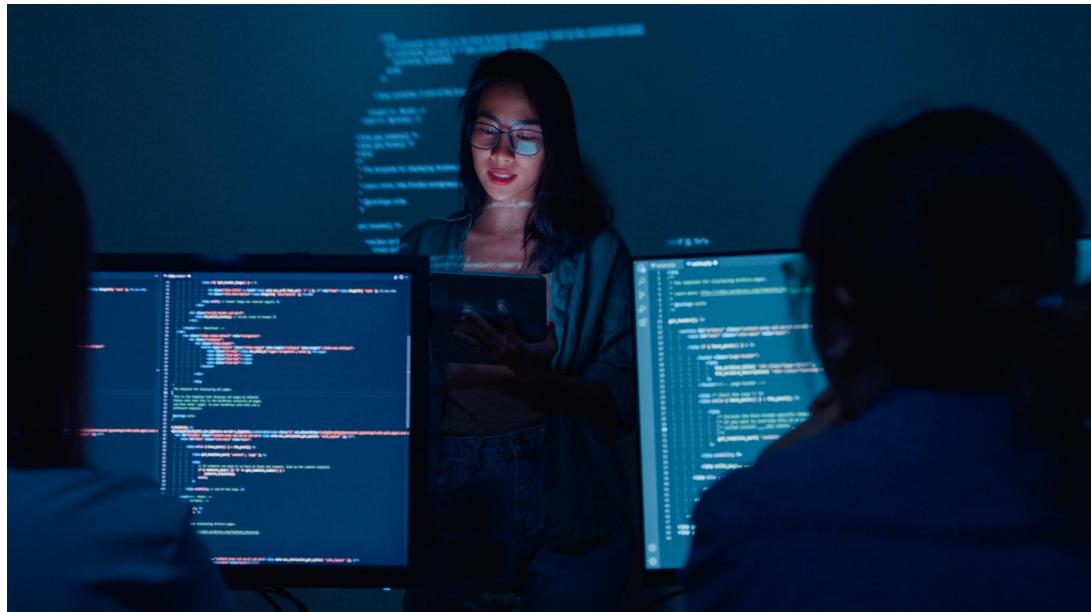
## **Accelerated Refactoring**

Automating repetitive and error-prone refactoring tasks speeds up code maintenance and reduces bugs.



# Case Study 1: Generating Boilerplate REST API Code with Structured Prompts

# Presenting the use case and developer requirements



## Quick API Scaffolding

Developers require tools to rapidly generate REST API endpoints for efficient project starts.

## Standard CRUD Operations

APIs must implement Create, Read, Update, and Delete operations consistently for reliable functionality.

## Best Practices & Coding Style

Adhering to coding standards ensures maintainable code and reduces manual setup errors.



# Crafting effective structured prompts for REST API code

## Clear Instructions

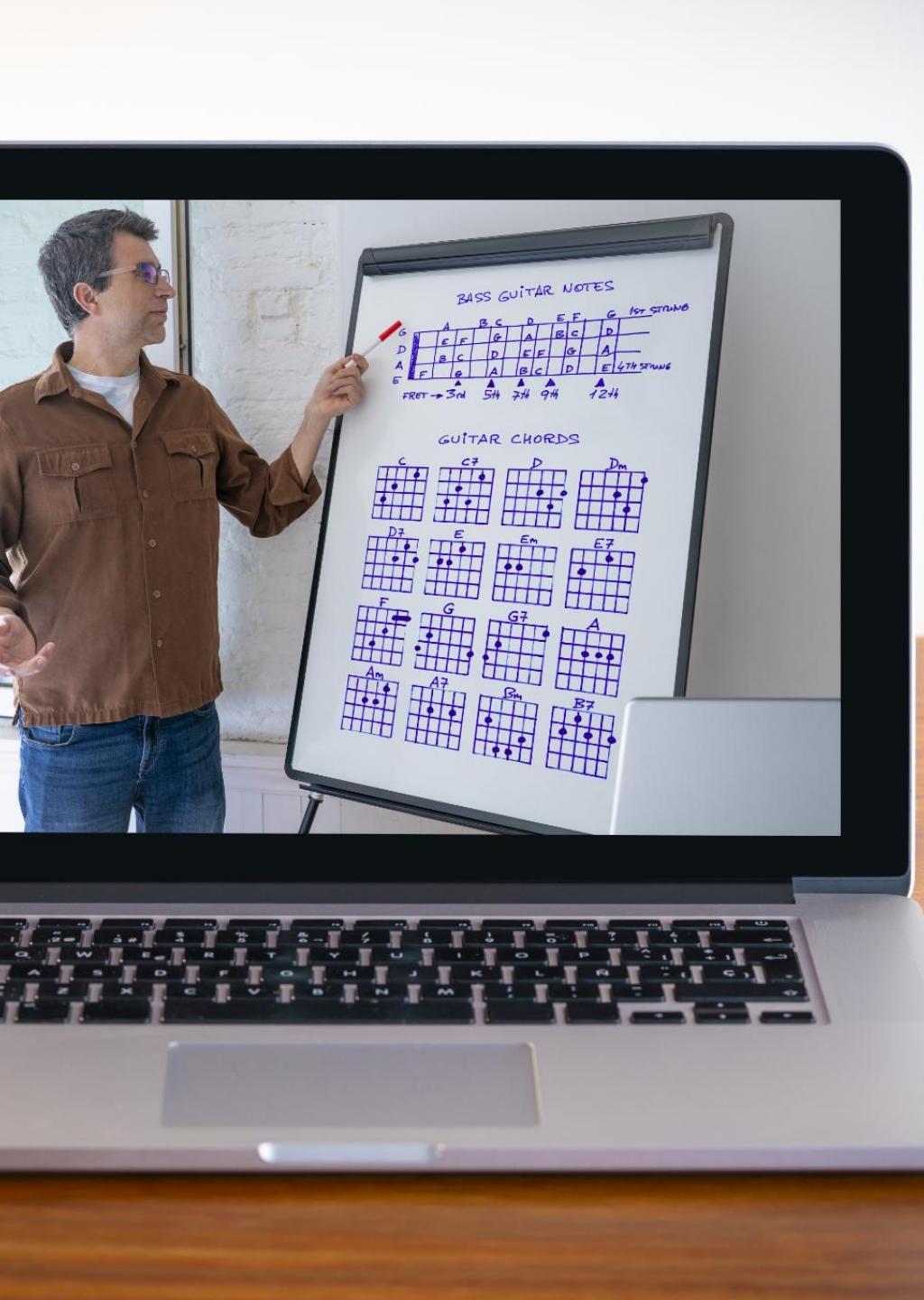
Providing precise and unambiguous instructions helps AI understand coding requirements effectively.

## Endpoint Specifications

Defining REST API endpoints clearly ensures correct mapping and functionality in generated code.

## Coding Conventions

Following coding standards and conventions improves maintainability and readability of code snippets.



# Sample prompts, AI-generated code snippets, and developer validation process

## Prompt Text Examples

Sample prompt texts are created to guide AI in generating accurate and relevant code snippets.

## AI-Generated Code Snippets

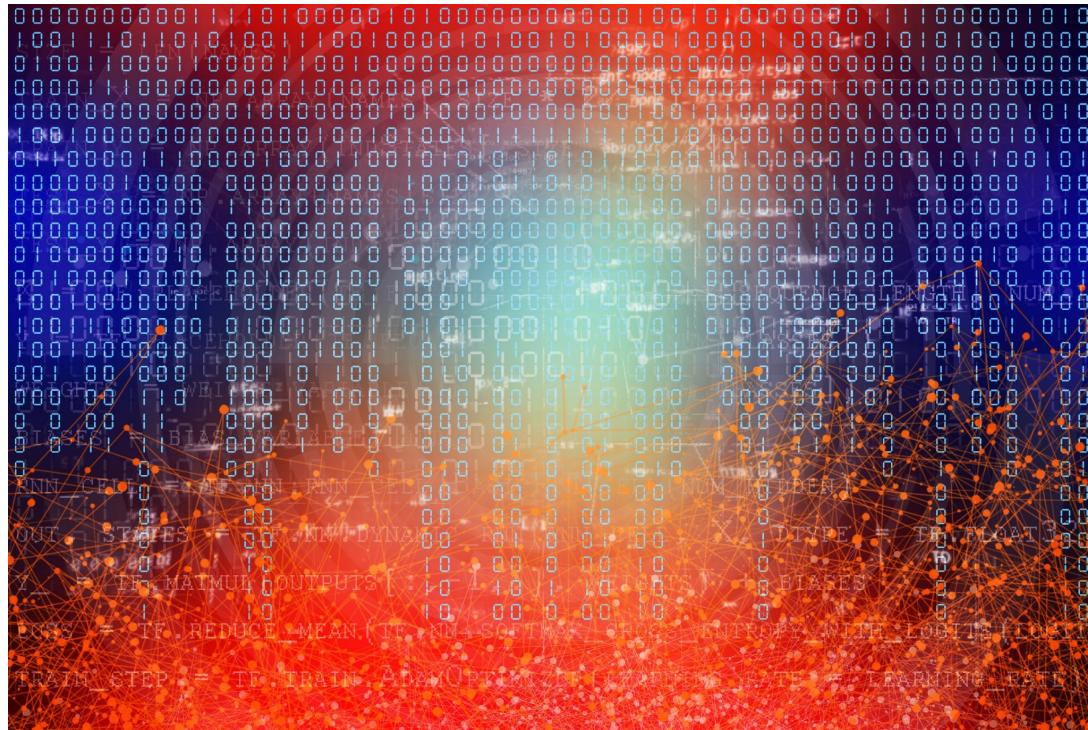
Code snippets generated by AI are reviewed to ensure style consistency and functional correctness.

## Iterative Developer Validation

Developers iteratively review and validate code to ensure it meets project standards before integration.

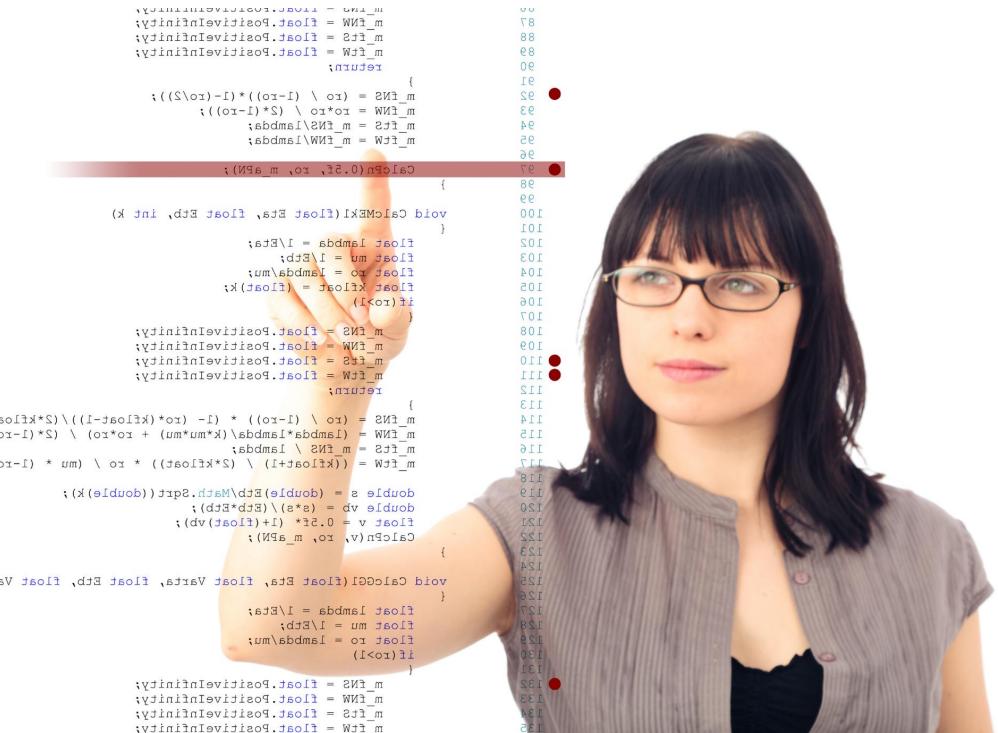
# Case Study 2: Refactoring Legacy Systems with AI- Powered Prompts

# Challenges in legacy codebases and refactoring goals



- Outdated Code Patterns
  - Legacy systems commonly include outdated design patterns that reduce code clarity and adaptability.
- Technical Debt Issues
  - Accumulated technical debt hinders development speed and increases maintenance costs in legacy codebases.
- Refactoring Objectives
  - Refactoring aims to enhance maintainability and performance while preserving existing system functionality.

# Designing prompts for style and performance constraints



- AI Prompt Crafting
  - Prompts guide AI to refactor code according to specific style guides and performance goals.
- Style Guide Compliance
  - Ensuring code changes align strictly with established project style standards.
- Performance Optimisation
  - Optimising code for efficiency while maintaining quality and readability.

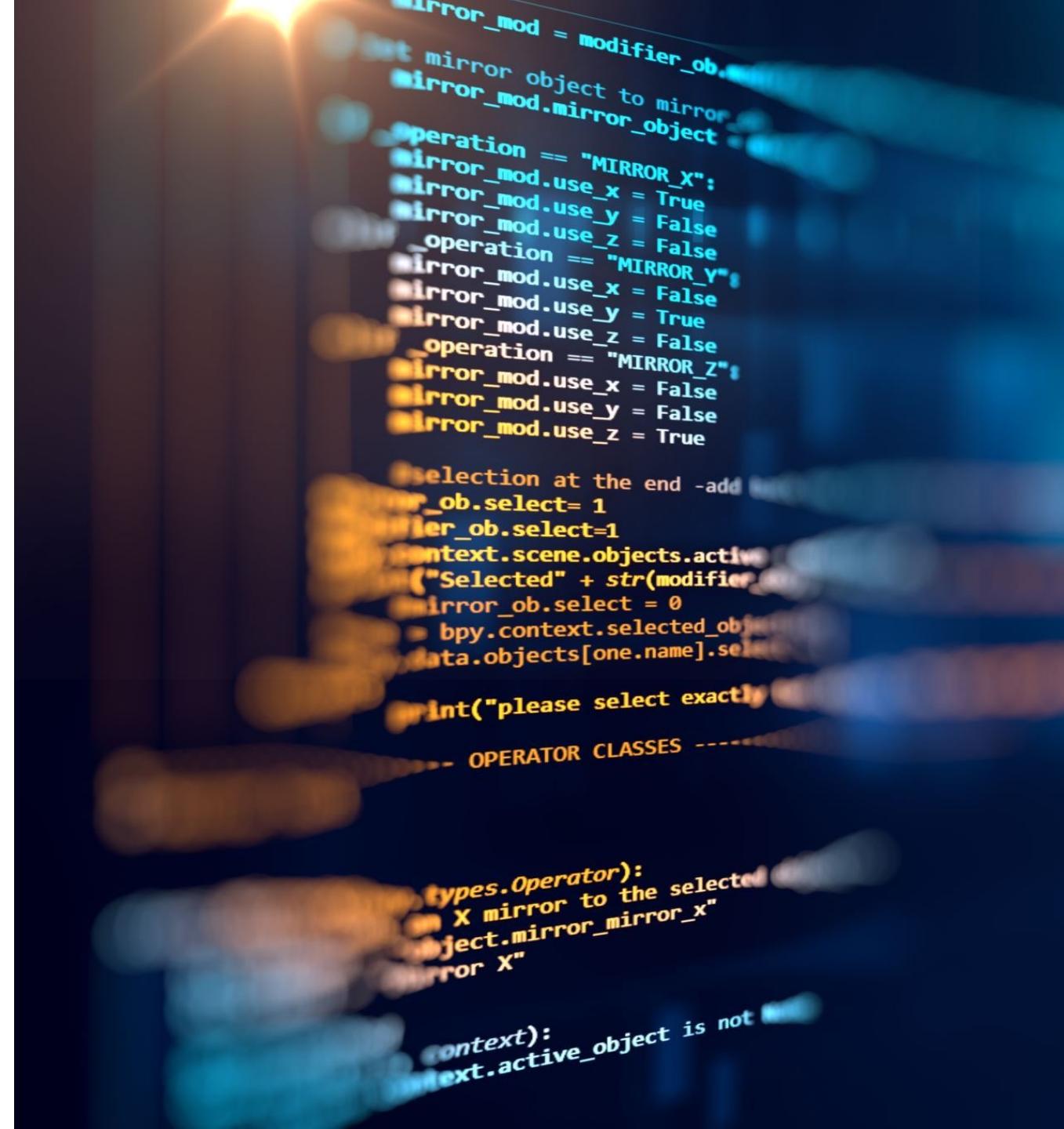
# Example prompts, AI output, and developer review steps

## Iterative Prompt Refinement

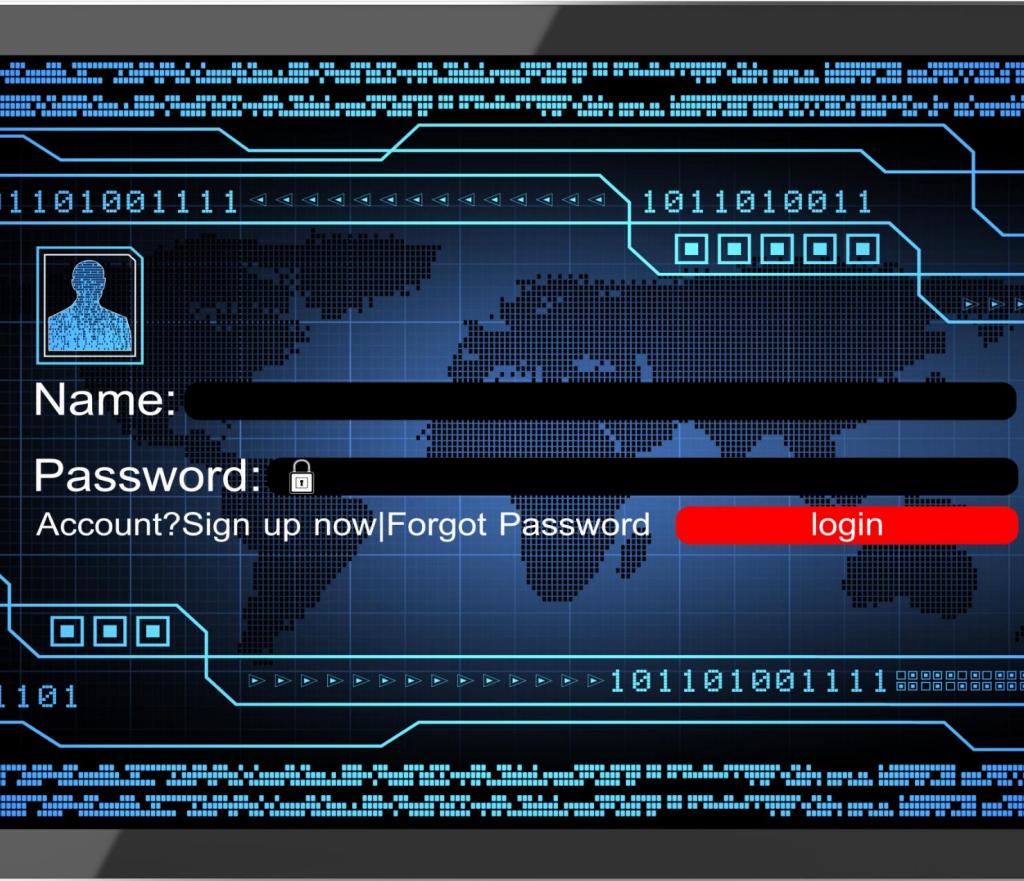
Developers continuously improved prompts to enhance AI output quality and relevance.

### **Thorough Review and Testing**

Comprehensive review and testing ensured the AI-generated code met all project requirements safely.



# Integrating Prompt Engineering into Developer Workflows



# Recommended practices for prompt integration in team environments

## Standardise Prompt Templates

Adopt uniform prompt templates to ensure clarity and consistency across team projects.

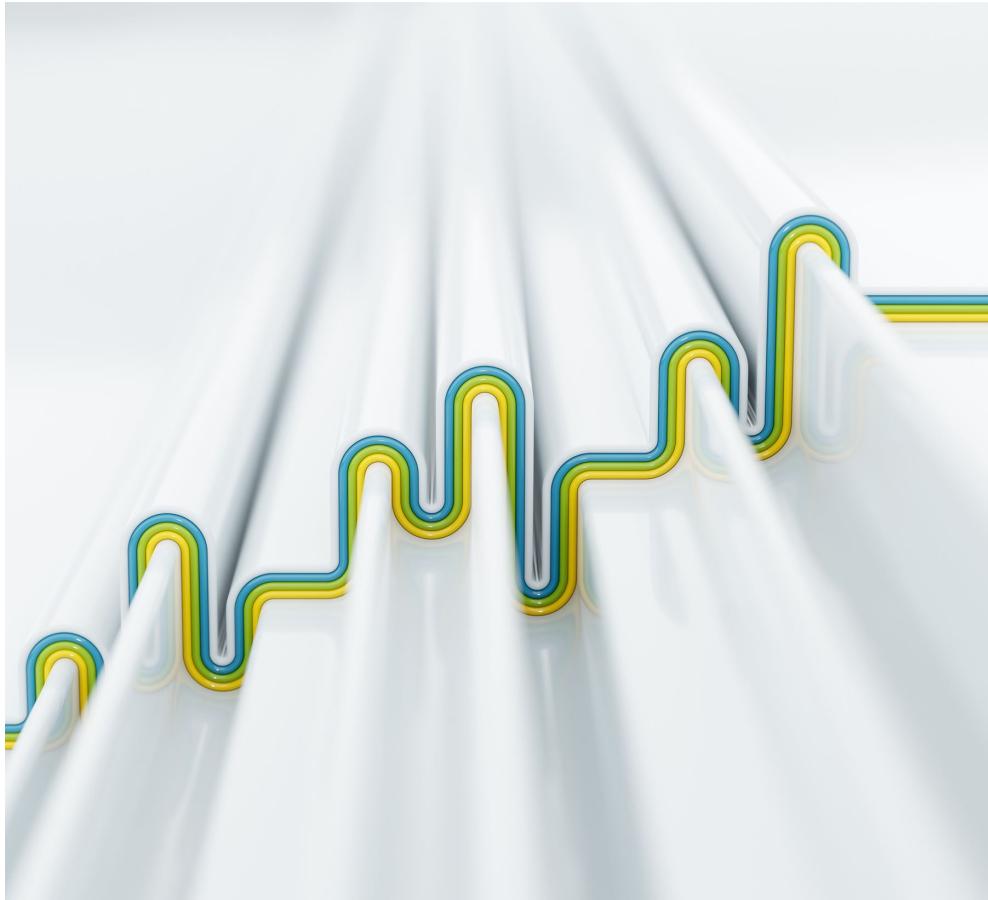
## Collaborative Prompt Refinement

Encourage team members to collaboratively improve prompts for better accuracy and effectiveness.

## Incorporate Prompt Reviews

Include prompt reviews in workflows alongside code reviews to maintain quality and consistency.

# Diagramming the end-to-end integration pipeline



## Prompt Creation

Initial step where prompts are designed to guide AI code generation effectively and accurately.

## AI Code Generation

AI automatically generates code based on prompts, accelerating development processes.

## Developer Validation

Developers review and validate AI-generated code to ensure quality and accuracy.

## Automated Testing and Deployment

Automated tests run to verify code integrity before deployment in a continuous improvement cycle.



# Addressing limitations, validation, and continuous improvement

## Managing AI Limitations

Addressing AI limitations is crucial to ensure reliable and accurate performance in various applications.

## Rigorous Validation

Rigorous validation processes help verify AI outputs and improve trustworthiness and effectiveness.

## Iterative Improvement

Continuous refinement of AI prompts based on feedback enhances performance over time.

**Summary,  
Takeaways, and  
Q&A**



# Key lessons from case studies and practical advice

## Effective Prompt Design

Designing clear and precise prompts is essential for productive AI-assisted coding outcomes.

## Clear Requirements

Setting clear, detailed requirements ensures aligned goals and smooth AI interactions during coding.

## Iterative Validation

Iterative review and validation improve prompt effectiveness and coding accuracy over time.

## Team Collaboration

Collaborative teamwork maximises success in AI-assisted coding projects by leveraging diverse expertise.

# Best practices for ongoing prompt engineering



- **Prompt Library Maintenance**
  - Organize and update prompt libraries regularly to ensure accessibility and relevance for AI tasks.
- **Documenting Intents and Outcomes**
  - Clearly record prompt intents and outcomes to track performance and guide improvements effectively.
- **Continuous Feedback Culture**
  - Encourage ongoing feedback to refine prompts and enhance AI assistance over time.



# Open floor for questions and discussion

## Encouraging Interaction

The session invites active participation and open dialogue to explore prompt engineering concepts.

## Clarifying Concepts

Questions help clarify complex topics and deepen understanding of prompt engineering in software development.

## Sharing Experiences

Participants share practical experiences to enrich collective knowledge and application of prompt engineering.

# Conclusion

## AI-Driven Code Generation

Prompt engineering enables AI to generate and refactor code efficiently, transforming software development workflows.

## Best Practices Integration

Applying best practices in prompt engineering helps developers save time and improve overall code quality.

## Embracing Innovation

Developers adopting prompt engineering embrace innovative AI tools to enhance productivity and coding effectiveness.

# BA Case Studies: Prompt Engineering in Action – Professional Training for Business Analysts, Product Owners, and Project Managers

Exploring AI-driven solutions through real-world case studies

# Session Agenda Overview

- Introduction to Prompt Engineering in BA Workflows
- Case Study 1: From Meeting Notes to Structured User Stories
- Case Study 2: Summarising Product Requirements into Backlog-Ready Items
- Benefits of AI-Powered Prompt Engineering for BAs
- Best Practices for Prompt Design in BA Workflows
- Sample Prompts and Formatted Outputs
- Workshop Summary and Next Steps

# Introduction to Prompt Engineering in BA Workflows

# Understanding prompt engineering and its relevance for BAs

## Crafting Effective AI Prompts

Prompt engineering focuses on designing precise inputs to enable AI systems to deliver useful and relevant outputs.

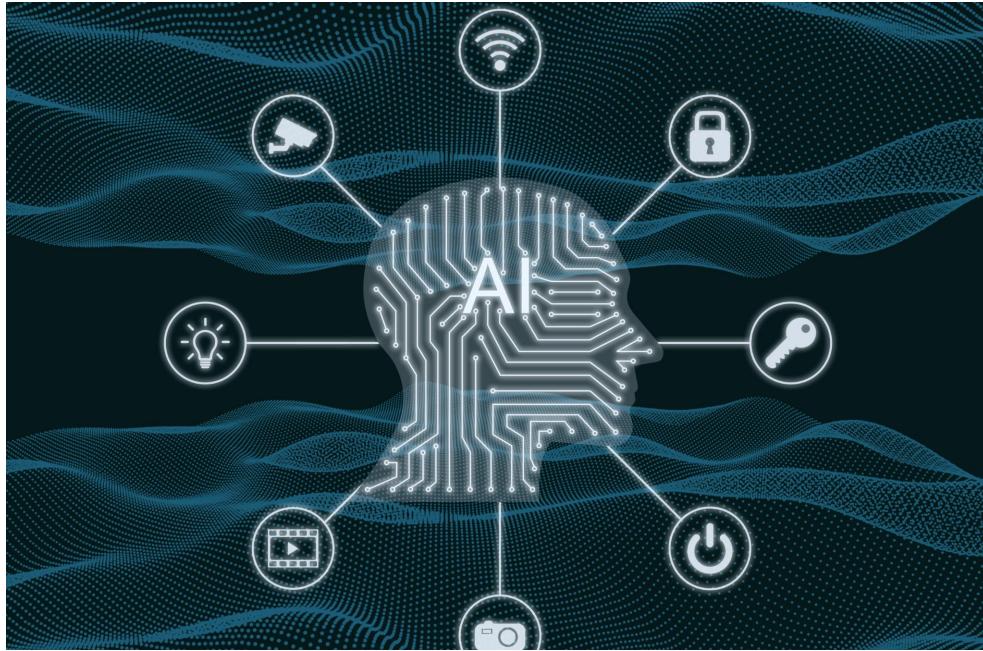
## Benefits for Business Analysts

Business analysts use prompt engineering to enhance analysis, documentation, and communication tasks efficiently.

## Improved Workflow Efficiency

Leveraging AI with prompt engineering improves accuracy and streamlines workflows in business analysis.





# Overview of AI-powered productivity enhancements

## Automation of Repetitive Tasks

AI automates routine and repetitive tasks, freeing time for more critical business activities.

## Summarisation of Complex Information

AI efficiently summarises complex data, enabling faster decision-making for business analysts.

## Generation of Artefacts

AI generates key business artefacts like user stories and acceptance criteria to support project delivery.

## Enhanced Focus and Delivery

These AI enhancements help business analysts focus on high-value tasks and speed up delivery.

# Objectives of workshop and expected outcomes

## Practical Prompt Engineering

Equip participants with hands-on prompt engineering skills to enhance AI interaction and application.

## Real-world Case Studies

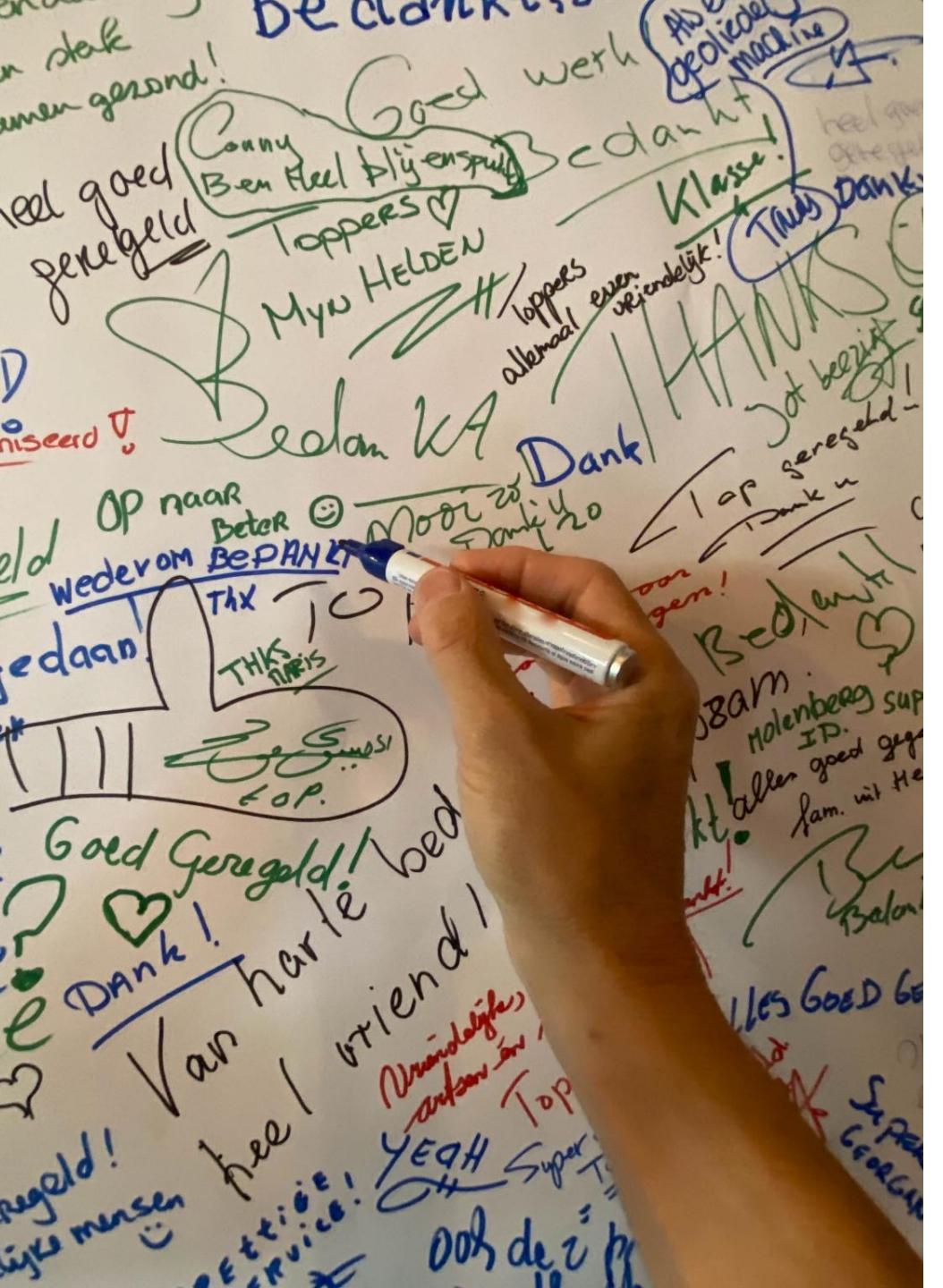
Demonstrate real-world examples showcasing successful AI integration in business analysis workflows.

## Best Practices for AI Integration

Provide best practices to effectively integrate AI into business analysis for improved productivity and quality.



# Case Study 1: From Meeting Notes to Structured User Stories



# Challenges with raw meeting notes

## Unstructured Note

Raw meeting notes lack structure, making it hard to extract clear requirements efficiently.

## Inconsistencies in Documentation

Inconsistent notes lead to misunderstandings and discrepancies during project planning.

## **Impact on Project Timeline**

Poorly documented notes cause delays and inaccuracies in gathering user requirements.

# Role-based prompts for extracting user stories

## Role Specification in Prompts

Specifying roles in prompts helps AI identify the perspective for extracting user stories accurately.

## Action and Goal Clarity

Including actions and goals in prompts ensures the extracted user stories are clear and purposeful.

## Standardised User Stories

AI organises meeting content into consistent user story formats for easier understanding and use.



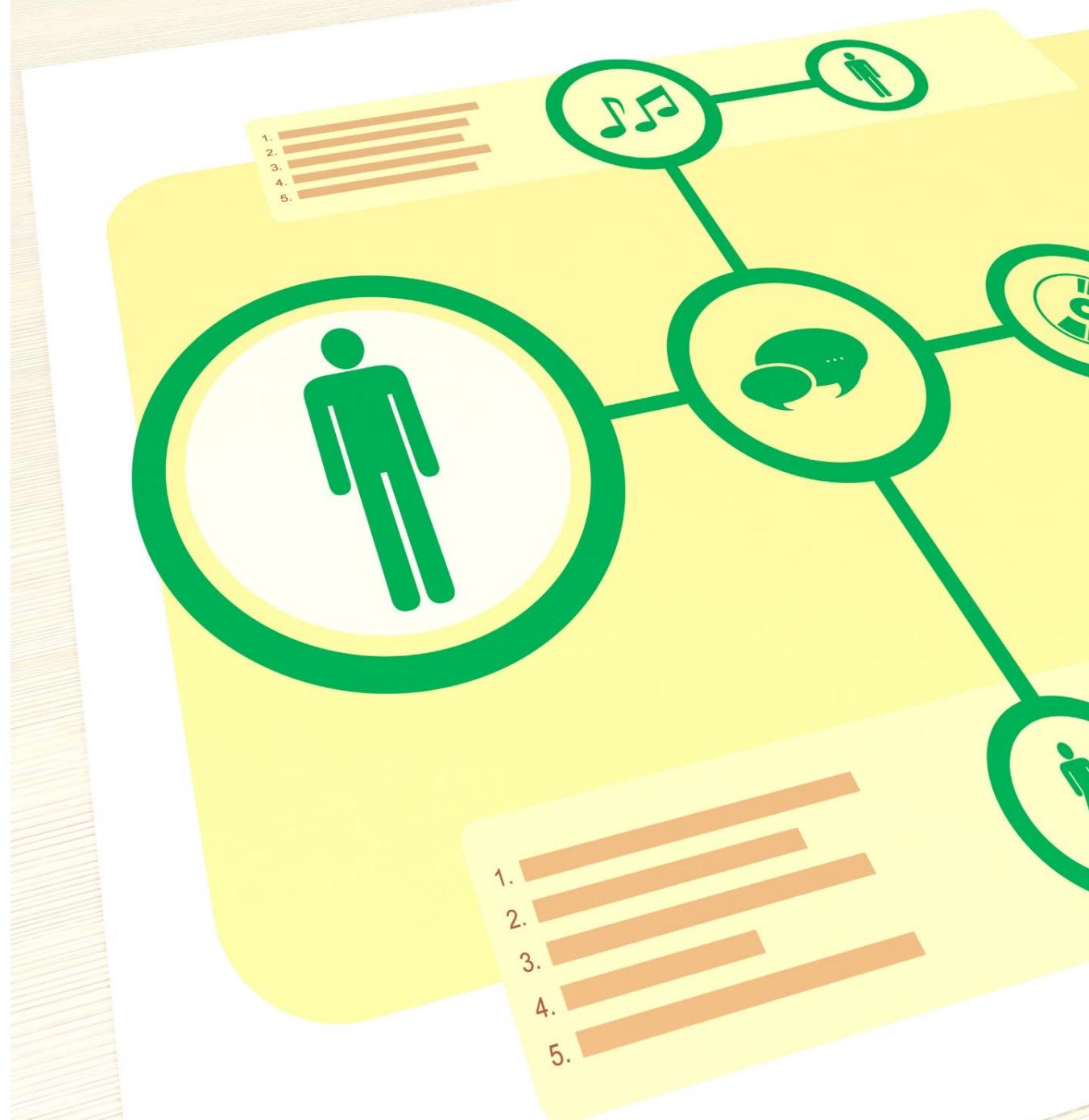
# Sample prompt and formatted user story output

## AI Prompt Purpose

The AI prompt guides identification of key elements: who, what, and why from meeting notes.

## Structured User Story Output

Output is a well-organized user story that improves traceability and usability in workflows.



# Case Study 2: Summarising Product Requirements into Backlog-Ready Items

# Unstructured requirements and backlog hygiene

## Challenges of Unstructured Requirements

Scattered and vague requirements complicate backlog management and hinder clear project prioritisation.

## Impact on Prioritisation

Poorly defined backlog items lead to ineffective prioritisation and delays in project delivery.

## Importance of Backlog Hygiene

Maintaining clear, structured backlog items improves delivery quality and team productivity.





# AI prompts for generating backlog items with acceptance criteria

## Standardised Backlog Item Format

AI prompts create backlog items with consistent structure improving team understanding and workflow.

## Incorporation of Acceptance Criteria

Inclusion of acceptance criteria enhances clarity and ensures items are testable and verifiable.

## Use of JIRA and Gherkin Syntax

Adopting JIRA and Gherkin syntax in AI-generated prompts streamlines communication for agile teams.

# Sample prompt and formatted backlog item output (e.g., JIRA, Gherkin)



## AI-Generated Backlog Items

AI prompts enable generation of backlog items with clear titles and detailed descriptions to enhance task clarity.

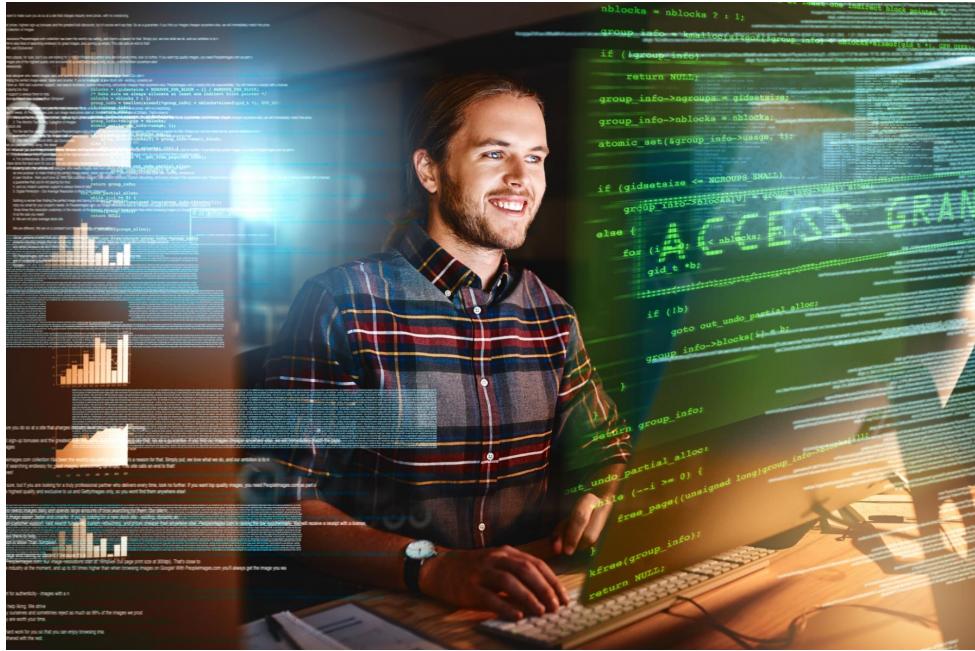
## Incorporating Acceptance Criteria

Acceptance criteria within backlog items ensure clear requirements for development and testing.

## Seamless Tool Integration

Formatted output aligns with tools like JIRA, facilitating smooth integration into existing workflows.

# Benefits of AI- Powered Prompt Engineering for BAs



# Improved clarity and actionable artefacts

## Clarifying Requirements

AI-generated outputs provide clear and precise requirements, minimizing ambiguity for development teams.

## Actionable Artefacts

Produced artefacts are immediately usable by developers, improving efficiency and reducing rework.

## Reducing Misunderstandings

AI helps avoid common misunderstandings between teams by providing consistent and precise outputs.

# Enhanced traceability and audit trails



- Structured Documentation
  - Structured prompts improve documentation quality and support clear traceability of project details and decisions.
- Traceability Benefits
  - Traceability ensures easy tracking of changes, enhancing accountability throughout the project lifecycle.

# Acceleration of BA deliverables

## AI-driven Task Automation

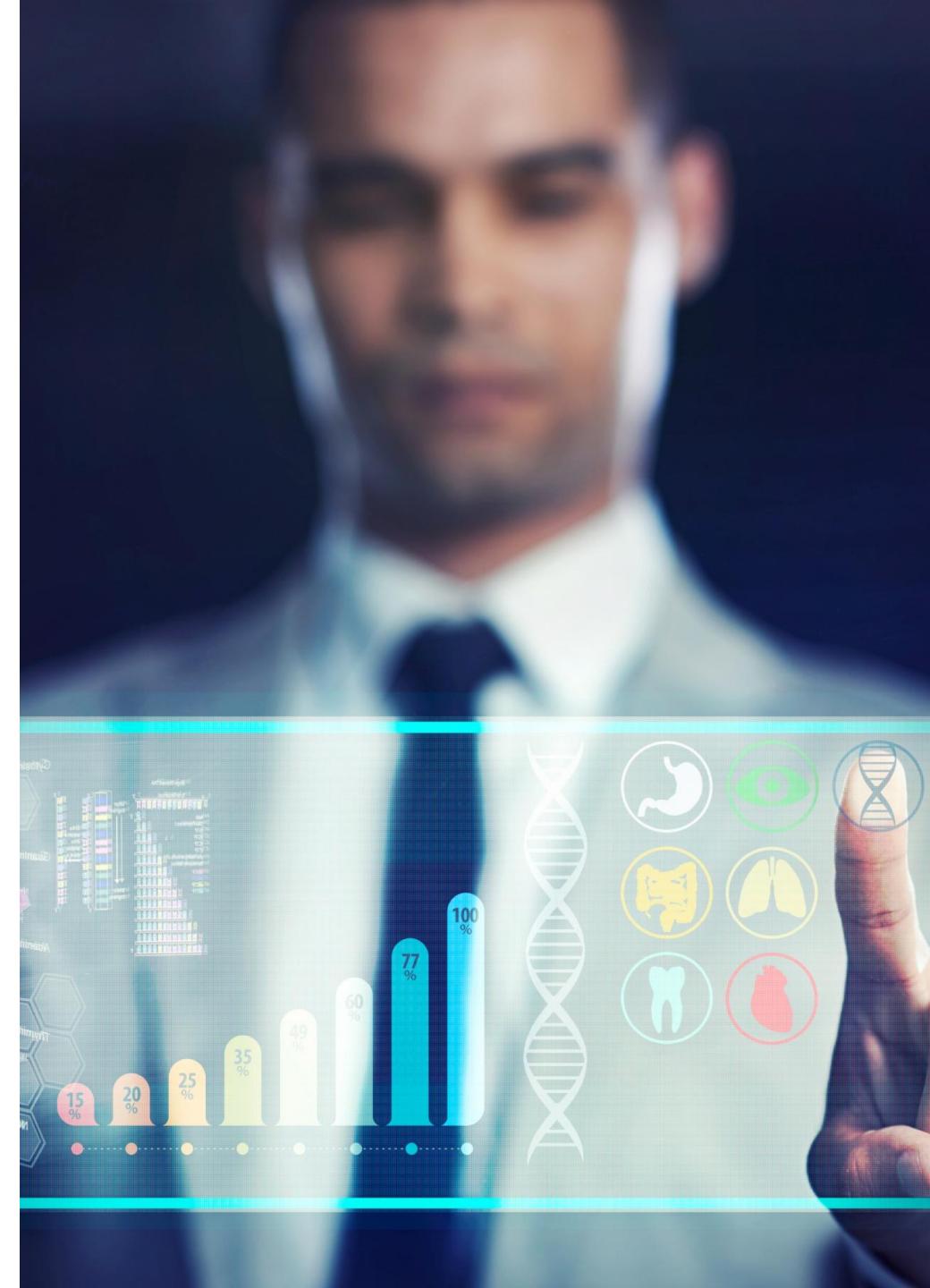
Automation of repetitive tasks using AI significantly decreases the time required for business analysis deliverables.

## Focus on Strategic Activities

Reducing routine workload allows business analysts to prioritise strategic initiatives and decision-making processes.

## Enhanced Stakeholder Engagement

Freed-up time enables better communication and collaboration with stakeholders for improved project outcomes.



# Best Practices for Prompt Design in BA Workflows



# Principles of effective prompt construction

## Clarity and Specificity

Effective prompts must be clear and specific to guide AI accurately and avoid ambiguity.

## Context Awareness

Including contextual information helps the AI understand the prompt's background and respond appropriately.

## Role and Format Inclusion

Specifying the desired role and output format improves the relevance and structure of AI's responses.

## Use of Examples

Providing examples within prompts assists AI in generating more accurate and high-quality responses.



# Iterative testing and refinement of prompts

## Iterative Process

Prompt engineering involves repeated testing and refinement to improve output quality over time.

## Testing Variations

Experimenting with different prompt versions helps identify the most effective phrasing and structure.

## Optimising Outputs

Analysing test results guides optimisation of prompts tailored to unique workflow needs.



# Incorporating feedback for continuous improvement

## User Feedback Collection

Collecting feedback from users helps identify areas where AI outputs need refinement and improvement.

## Prompt Adjustment

Adjusting AI prompts based on feedback ensures better alignment with business objectives and user needs.

## Improved User Satisfaction

Continuous improvements driven by feedback increase user satisfaction and trust in AI outputs.

# Let's Connect



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Happy Learning!!  
Thanks for Your  
Patience ☺

# **Surendra Panpaliya**

## **GKTCS Innovations**