

# Software Development

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## Prompt 1: Code Debugging Assistant

**Prompt:** "I am debugging a piece of Python code, but it's throwing an error. Here is the code and the error message. Suggest what might be wrong and how to fix it. Also, explain why the error occurred:

Code: [Insert code snippet]

Error: [Insert error message]."

**Test Case 1:** Input:

Code:

python

Copy code

```
def add_numbers(a, b):  
    return a + b
```

```
print(add_numbers(5))
```

Error:

```
TypeError: add_numbers() missing 1 required positional argument: 'b'
```

Expected Output:

"The error occurred because the function `add_numbers` expects two arguments (`a` and `b`), but you only passed one. Update the function call to pass both arguments, like this:

```
print(add_numbers(5, 3)).
```

 This ensures all required parameters are provided."

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## Prompt 2: Refactoring Code for Readability

**Prompt:** "Refactor the following code to improve readability, maintainability, and efficiency. Provide comments explaining your changes.

Code: [Insert code snippet]."

**Test Case 2:**

Input:

```
data = [1, 2, 3, 4, 5]  
sum = 0
```

```
for i in range(len(data)):
    sum = sum + data[i]
print(sum)
```

Expected Output:

python

Copy code

```
# Refactored code for readability and efficiency
data = [1, 2, 3, 4, 5]
total_sum = sum(data) # Using Python's built-in sum function for
simplicity
print(total_sum)
```

Explanation:

"Used the built-in `sum` function to simplify the loop and renamed `sum` to `total_sum` to avoid shadowing the built-in `sum` function."

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### Prompt 3: System Architecture Recommendations

**Prompt:**

"I am building a [describe the application, e.g., a real-time chat application]. Suggest an appropriate system architecture, including backend framework, database, and caching mechanism. Justify your choices based on scalability, performance, and ease of development."

**Test Case 3:**

Input:

"I am building a real-time collaborative document editor for simultaneous editing by multiple users."

Expected Output:

"For a real-time collaborative document editor:

1. **Backend Framework:** Use Node.js with WebSocket support for real-time updates.
2. **Database:** Use PostgreSQL for structured data and Redis for in-memory caching of real-time edits.
3. **Version Control:** Implement Operational Transformation (OT) or Conflict-Free Replicated Data Types (CRDTs) for conflict resolution during simultaneous edits. This architecture ensures low latency for real-time editing and scalability to support many users."

# Human Resources

## Prompt 1: Job Description Generator

### Prompt:

"Create a comprehensive job description for the role of [role], including key responsibilities, required qualifications, and desirable skills. Make it concise yet appealing to candidates."

### Test Case 1:

Input:

Role: Data Scientist

Expected Output:

**"Job Title:** Data Scientist

### **Key Responsibilities:**

- Analyze large datasets to derive actionable insights.
- Build predictive models and machine learning algorithms.
- Collaborate with cross-functional teams to support business objectives.

### **Required Qualifications:**

- Bachelor's degree in Data Science, Computer Science, or related field.
- Proficiency in Python, R, and SQL.
- Experience with machine learning frameworks like TensorFlow or PyTorch.

### **Desirable Skills:**

- Strong communication and problem-solving abilities.
  - Knowledge of cloud platforms like AWS or GCP."
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## Prompt 2: Employee Feedback Analysis

### Prompt:

"Analyze the following employee feedback data to identify key trends, common concerns, and actionable suggestions for improving workplace satisfaction. Feedback: [Insert feedback]."

### Test Case 2:

Input:

Feedback:

1. "The workload is too high, and deadlines are unrealistic."
2. "Better training programs are needed."

3. "Flexible work hours are great, but team communication can improve."

Expected Output:

**"Key Trends:**

- High workload and unrealistic deadlines are recurring themes.
- Requests for better training programs indicate a skills gap.
- Positive feedback on flexible work hours but concerns about team communication.

**Actionable Suggestions:**

1. Reassess project timelines to make them more realistic.
  2. Invest in employee training and upskilling programs.
  3. Organize regular team-building activities to enhance communication."
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**Prompt 3: Interview Question Recommendations**

**Prompt:**

"Suggest a set of behavioral interview questions for assessing a candidate's [specific skill, e.g., leadership skills, teamwork]. Include questions with follow-ups to probe deeper."

**Test Case 3:**

Input:

Skill: Leadership

Expected Output:

**"Behavioral Interview Questions for Leadership:**

1. Can you share an example of when you led a team to achieve a challenging goal?
  - Follow-up: How did you handle conflicts or setbacks during the process?
2. Describe a situation where you had to make a difficult decision as a leader.
  - Follow-up: What was the outcome, and what did you learn from it?
3. How do you motivate team members who are underperforming?
  - Follow-up: Can you give an example of a time this strategy worked?"

# Finance

## Prompt 1: Financial Forecasting Assistant

### Prompt:

"Generate a 12-month financial forecast for a small business selling [product/service] based on the following input data: [Insert data]. Include revenue, expenses, and net profit projections."

### Test Case 1:

Input:

Product: Handmade candles

Monthly Revenue: \$5,000

Monthly Expenses: \$3,000

Expected Output:

#### "12-Month Financial Forecast

- Revenue:  $\$5,000/\text{month} \times 12 = \$60,000/\text{year}$
  - Expenses:  $\$3,000/\text{month} \times 12 = \$36,000/\text{year}$
  - Net Profit:  $\$60,000 - \$36,000 = \$24,000/\text{year}$
- Adjust forecasts based on seasonality, potential growth, or unexpected costs."
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## Prompt 2: Investment Strategy Advisor

### Prompt:

"Recommend an investment strategy for an individual aged 30 with a medium risk tolerance and a savings goal of \$100,000 in 10 years."

### Test Case 2:

Input: Medium risk tolerance, \$10,000 starting amount.

Expected Output:

#### "Investment Strategy:

1. Allocate funds: 60% in ETFs, 30% in bonds, and 10% in high-growth stocks.
  2. Contribute \$600/month to reach the goal in 10 years.
  3. Rebalance portfolio annually to manage risk."
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## Prompt 3: Expense Categorization

**Prompt:**

"Classify the following expenses into categories like fixed, variable, or discretionary, and suggest potential cost-saving measures. Expenses: [Insert expenses]."

**Test Case 3:**

Input:

Expenses: Rent - \$1,200, Utilities - \$300, Dining Out - \$150, Streaming Services - \$50.

Expected Output:

**"Expense Categories:**

- Fixed: Rent (\$1,200).
- Variable: Utilities (\$300).
- Discretionary: Dining Out (\$150), Streaming Services (\$50).

**Cost-Saving Suggestions:**

- Reduce dining out to \$100/month.
- Cancel or consolidate streaming services."

## Healthcare

**Prompt 1: Symptom Checker Assistant****Prompt:**

"Given these symptoms: [Insert symptoms], suggest possible conditions to investigate and recommend when to consult a doctor."

**Test Case 1:**

Input:

Symptoms: Fever, sore throat, fatigue.

Expected Output:

"Possible conditions: Common cold, strep throat, or influenza.

Recommendation: Consult a doctor if fever persists for more than 3 days or if throat pain worsens."

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**Prompt 2: Health Education Content****Prompt:**

"Write an educational guide on managing [condition], including causes, symptoms, and lifestyle tips for better health."

**Test Case 2:**

Input:

Condition: Type 2 Diabetes

Expected Output:

**"Guide to Managing Type 2 Diabetes:**

- **Causes:** Insulin resistance, obesity, genetic factors.
  - **Symptoms:** Increased thirst, frequent urination, fatigue.
  - **Lifestyle Tips:** Maintain a balanced diet, exercise regularly, monitor blood sugar levels, and manage stress."
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**Prompt 3: Patient Appointment Reminder**

**Prompt:**

"Compose a friendly and professional appointment reminder for a patient scheduled at [time] on [date]. Include location and rescheduling instructions."

**Test Case 3:**

Input:

Time: 10:00 AM, Date: December 15, Location: ABC Clinic.

Expected Output:

"Hello [Patient's Name],

This is a reminder of your appointment at ABC Clinic on December 15 at 10:00 AM.

If you need to reschedule, please call us at (123) 456-7890. We look forward to seeing you!"

## Teaching

**Prompt 1: Lesson Plan Generator**

**Prompt:**

"Create a 45-minute lesson plan to teach [topic] to [age group]. Include objectives, activities, and assessment methods."

**Test Case 1:**

Input:

Topic: Basic Algebra, Age Group: Middle School

Expected Output:

**"Lesson Plan:**

- **Objective:** Students will solve basic algebraic equations (e.g.,  $x + 5 = 10$ ).
  - **Activities:** Interactive Q&A, solving problems in pairs, and a short game involving algebra.
  - **Assessment:** 5-question quiz at the end of the lesson."
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### **Prompt 2: Feedback for Students**

#### **Prompt:**

"Write constructive feedback for a student who struggled with [topic] but showed improvement in [aspect]."

#### **Test Case 2:**

Input:

Topic: Essay Writing, Aspect: Grammar

Expected Output:

"Great work on improving your grammar skills! Keep focusing on structuring your essays with clear introductions and conclusions to enhance readability."

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### **Prompt 3: Interactive Quiz Creator**

#### **Prompt:**

"Design a 5-question multiple-choice quiz on [topic] with one correct answer and three plausible distractors for each question."

#### **Test Case 3:**

Input:

Topic: Photosynthesis

Expected Output:

**"Question 1:** What is the main purpose of photosynthesis?

- a) To produce oxygen.
- b) To convert sunlight into chemical energy. (Correct)
- c) To absorb nutrients from the soil.
- d) To provide shade for plants."



# Marketing

## Prompt 1: Social Media Post Generator

### Prompt:

"Write an engaging social media post for promoting [product/service] targeted at [audience]. Include a catchy headline, brief description, and a call to action."

### Test Case 1:

Input:

Product: Eco-friendly water bottles

Audience: Health-conscious millennials

Expected Output:

"🌱 Stay Hydrated, Stay Green! 💧

Say hello to eco-friendly hydration with our sustainable water bottles. Made for the planet, designed for you.

✨ Get yours now and sip sustainably: [Insert Link] #EcoFriendly #StayHydrated"

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## Prompt 2: Competitor Analysis Summary

### Prompt:

"Summarize the strengths and weaknesses of [competitor] in comparison to [your company/product] based on these details: [Insert details]."

### Test Case 2:

Input:

Competitor: Brand A (premium pricing, strong customer base, limited product range)

Your company: Brand B (affordable pricing, growing user base, diverse product range)

Expected Output:

#### "Competitor Analysis:

- **Strengths of Brand A:** Loyal customer base and premium brand image.
  - **Weaknesses of Brand A:** High prices and limited product options.
  - **Advantages of Brand B:** Affordable pricing attracts budget-conscious customers, while a diverse product range appeals to various segments.  
Focus on highlighting affordability and variety to compete effectively."
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## Prompt 3: Email Campaign Draft

**Prompt:**

"Draft an email campaign for announcing [event or promotion] to [target audience]. Keep it professional yet persuasive with a clear call to action."

**Test Case 3:**

Input:

Event: 20% Off Holiday Sale

Target Audience: Existing customers

Expected Output:

**"Subject Line:** 📺 Exclusive Holiday Offer Just for You!

**Body:**

'Tis the season for giving—and saving! Enjoy 20% off your favorite products during our Holiday Sale. Act fast—this offer ends December 20!

[Shop Now] and celebrate the holidays with us."

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## Customer Support

**Prompt 1: Troubleshooting Guide****Prompt:**

"Write a step-by-step troubleshooting guide for [common issue] that customers face when using [product/service]."

**Test Case 1:**

Input:

Common Issue: Wi-Fi not connecting

Product: Smart Thermostat

Expected Output:

**"Troubleshooting Guide:**

1. Ensure your Wi-Fi network is active and functioning.
  2. Restart the thermostat and router.
  3. Confirm the thermostat is within Wi-Fi range.
  4. Check for firmware updates in the app.
  5. Contact support if the issue persists."
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## **Prompt 2: Handling Difficult Customers**

### **Prompt:**

"Draft a professional response to a customer who is unhappy about [specific issue]. Acknowledge their concerns and offer a solution."

### **Test Case 2:**

Input:

Issue: Delayed shipping

Expected Output:

"Dear [Customer's Name],

We sincerely apologize for the delay in shipping your order. We understand how frustrating this can be.

We've expedited your shipment and it will now arrive by [new date]. Additionally, we've issued a 10% refund as a token of our apology. Thank you for your patience!"

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## **Prompt 3: FAQ Content Creator**

### **Prompt:**

"Generate a FAQ section for [product/service] to address common customer questions. Include questions and concise answers."

### **Test Case 3:**

Input:

Product: Subscription-based streaming service

Expected Output:

**"FAQ:**

1. How do I cancel my subscription?
    - Log in, go to Account Settings, and click 'Cancel Subscription.'
  2. Can I watch on multiple devices?
    - Yes, up to 4 devices simultaneously.
  3. What content is available offline?
    - Most shows and movies can be downloaded for offline viewing."
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# Legal

## Prompt 1: Contract Review Summary

### Prompt:

"Summarize the key terms and clauses in the following contract. Highlight any areas of concern or ambiguity. Contract: [Insert contract]."

### Test Case 1:

Input:

Contract: Employment agreement with a non-compete clause limiting employment in similar industries for 2 years post-termination.

Expected Output:

#### "Key Terms:

- Employment Type: Full-time, at-will.
- Compensation: \$60,000/year.
- Non-Compete Clause: Restricts employment in similar industries for 2 years post-termination.

#### Concerns:

- Non-compete duration may be excessive and subject to state laws. Consider negotiating for a shorter timeframe or specifying restricted industries."
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## Prompt 2: Legal Disclaimer Generator

### Prompt:

"Write a legal disclaimer for [context] to limit liability and clarify the terms of use."

### Test Case 2:

Input:

Context: A fitness app providing workout advice

Expected Output:

#### "Disclaimer:

The content provided in this app is for informational purposes only and is not a substitute for professional medical advice. Consult a healthcare provider before starting any fitness program. The company is not responsible for injuries or damages resulting from the use of this app."

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### **Prompt 3: Compliance Checklist Creator**

**Prompt:**

"Create a compliance checklist for [specific regulation] applicable to [industry]."

**Test Case 3:**

Input:

Regulation: GDPR

Industry: E-commerce

Expected Output:

**"GDPR Compliance Checklist for E-commerce:**

1. Obtain explicit consent before collecting customer data.
2. Provide a clear privacy policy.
3. Enable customers to request data access or deletion.
4. Secure personal data with encryption.
5. Report data breaches within 72 hours."

## **Creative Writing**

### **Prompt 1: Story Idea Generator**

**Prompt:**

"Generate an original story idea based on the theme of [insert theme] for a [specific genre]. Include a brief synopsis and the main character's background."

**Test Case 1:**

Input:

Theme: Redemption, Genre: Fantasy

Expected Output:

**"Story Idea:** A disgraced knight banished from his kingdom discovers a magical artifact that could save the realm from an impending invasion. To earn redemption, he must confront his past mistakes and rally an unlikely band of allies.

**Main Character:** Ser Alden, a former royal guard, burdened by his failure to protect the king during a coup. Once proud, he now seeks to redeem his honor."

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### **Prompt 2: Poetry Creation**

**Prompt:**

"Write a poem on [topic] in [specific style, e.g., haiku, sonnet]."

### **Test Case 2:**

Input:

Topic: Autumn, Style: Haiku

Expected Output:

"Leaves fall gently down,  
Amber whispers in the breeze,  
Autumn's quiet grace."

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### **Prompt 3: Character Development Guide**

#### **Prompt:**

"Create a detailed character profile for a [protagonist/antagonist] in a [genre] story, focusing on motivations, strengths, weaknesses, and unique quirks."

### **Test Case 3:**

Input:

Protagonist, Genre: Mystery

Expected Output:

#### **"Character Profile:**

- **Name:** Detective Clara Hayes
- **Motivations:** Solve her sister's disappearance and expose corruption in the force.
- **Strengths:** Highly analytical, resourceful, and tenacious.
- **Weaknesses:** Trust issues and a tendency to break rules.
- **Quirks:** Always carries an old fountain pen she uses to jot down clues."

## **Education**

### **Prompt 1: Study Plan Creator**

#### **Prompt:**

"Develop a 4-week study plan for mastering [topic] tailored to [type of learner, e.g., visual, auditory]. Include weekly goals and suggested resources."

### **Test Case 1:**

Input:

Topic: Linear Algebra, Type of Learner: Visual

Expected Output:

**"4-Week Study Plan for Linear Algebra (Visual Learner):**

- **Week 1:** Learn matrix operations using Khan Academy videos and visualize concepts with graphing tools.
  - **Week 2:** Understand vector spaces through diagram-based tutorials and practice problems.
  - **Week 3:** Explore eigenvalues and eigenvectors using animated explanations on YouTube.
  - **Week 4:** Solve applied problems, focusing on graphical representations in textbooks and online resources."
- 

## **Prompt 2: Interactive Learning Activity**

### **Prompt:**

"Design an interactive learning activity to teach [concept] to [age group]. Include the materials required and the steps to conduct the activity."

### **Test Case 2:**

Input:

Concept: Fractions, Age Group: Elementary School

Expected Output:

#### **"Interactive Activity:**

- **Objective:** Teach students to compare fractions.
  - **Materials:** Fraction cards, colored markers, a large poster.
  - **Steps:**
    1. Distribute fraction cards to students.
    2. Have them color code the numerator and denominator.
    3. Arrange cards on the poster to compare sizes.
    4. Discuss findings and clarify misconceptions."
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## **Prompt 3: Quiz and Assessment Builder**

### **Prompt:**

"Create a 10-question multiple-choice quiz on [topic] with one correct answer and three plausible distractors for each question. Include an answer key."

### **Test Case 3:**

Input:

Topic: World War II

Expected Output:

#### **"Sample Question:**

1. What event started World War II?
  - a) The bombing of Pearl Harbor
  - b) Germany's invasion of Poland (Correct)
  - c) The Treaty of Versailles
  - d) Japan's invasion of China

**Answer Key:**

1: b, 2: c, 3: a..."