

AI Prompt Templates

Here are **20 ChatGPT prompt templates** designed for **software development estimation**. They incorporate **proper prompting techniques** such as **Chain-of-Thought, Contextual Prompting, and Automated Prompt Generation**.

1. General Software Development Estimation

*"Given the requirements for a **[type of software]**, estimate the time, cost, and team size needed for development. Assume a team working with **[tech stack]** and provide a breakdown by phases (planning, development, testing, deployment)."*

2. Agile Development Effort Estimation

*"Using Agile methodology, estimate the effort required to build **[specific feature/module]** in story points. Consider a sprint length of **[X weeks]** and a team of **[X]** developers."*

3. Feature-Based Estimation

*"Estimate the development time and cost for implementing **[feature A]**, **[feature B]**, and **[feature C]** in a **[type of software]** using **[tech stack]**. Include frontend, backend, and testing considerations."*

4. Backend Development Estimation

*"Estimate the time and resources needed to develop a scalable backend for a **[type of app]** using **[database, server, and API choices]**. Consider factors like expected user load, data storage needs, and security requirements."*

5. Frontend Development Estimation

*"Provide an effort estimate for designing and implementing a frontend UI using **[React/Vue/Angular]** with **[X]** screens, animations, and responsive design. Include accessibility and cross-browser compatibility."*

6. Mobile App Development Cost

*"Estimate the development timeline and costs for a **[Android/iOS/both]** mobile app with the following key features: **[list features]**. Assume a development team of **[X]** engineers."*

7. SaaS Product Estimation

*"Estimate the time, cost, and team size for developing a **[SaaS platform]** with user authentication, subscription management, and analytics. Consider DevOps, security, and scalability aspects."*

8. E-commerce Platform Estimation

*"Estimate the effort needed to develop an e-commerce website with **[product listing, shopping cart, payment gateway integration]** using **[Shopify/WordPress/Custom Development]**. Include UX/UI considerations."*

9. API Development Cost & Time

*"Estimate the time required to design, develop, and document a **[REST/GraphQL API]** for **[purpose]**. Consider authentication, rate limiting, and data security."*

10. DevOps & Infrastructure Estimation

*"Estimate the cost and time needed to set up **[CI/CD pipelines, cloud hosting, and containerization]** for a **[size of project]**. Include deployment automation and monitoring."*

11. MVP Development Timeline

*"Provide a high-level estimate for an MVP version of a **[product idea]**. Prioritize core features and a launch timeline within **[X months]**. Consider rapid development methodologies."*

12. AI/ML Model Development Estimate

*"Estimate the time, resources, and dataset needs to build and deploy an AI/ML model for **[problem statement]**. Include preprocessing, training, evaluation, and deployment."*

13. Database Design & Optimization

*"Estimate the effort required to design a relational database schema for a **[type of application]**. Consider indexing, normalization, and scalability factors."*

14. Migration & Refactoring Estimation

*"Estimate the time and cost needed to migrate an existing system from **[old tech]** to **[new tech]**. Include database migration, API refactoring, and UI adjustments."*

15. Performance Optimization Cost

*"Estimate the effort required to optimize an application experiencing **[performance issue]** due to **[bottleneck]**. Suggest solutions like caching, database indexing, and load balancing."*

16. Security & Compliance Cost Estimate

*"Estimate the time and resources required to implement security best practices and compliance (**[GDPR, HIPAA, etc.]**) for a **[type of software]**. Consider encryption, authentication, and vulnerability assessments."*

17. Integration with Third-Party Services

*"Estimate the development effort required to integrate **[third-party service]** into an existing system. Consider API calls, authentication, and data synchronization."*

18. QA & Testing Time Estimation

*"Estimate the testing effort required for a **[web/mobile]** application with **[X] features**. Include manual testing, automated testing, and performance testing timelines."*

19. Maintenance & Support Cost

*"Estimate the annual maintenance and support costs for a **[web/mobile/enterprise]** application with **[X]** active users. Include bug fixes, feature updates, and server costs."*

20. Risk Assessment in Estimation

*"Identify potential risks in estimating the development effort for **[type of software]**. Provide a risk mitigation strategy and best practices for reducing uncertainty."*

How to Use These Prompts Effectively

- **Refine each prompt** with specific details (e.g., project size, team composition).
- **Use Chain-of-Thought** to guide the AI through reasoning steps (e.g., "First, estimate frontend effort, then backend, then testing.").
- **Contextualize** your query with relevant constraints (e.g., budget limits, timeline pressure).
- **Automate prompting** by integrating these templates into estimation workflows.