CHALLENGE 0 :
WHAT'S YOUR CURRENT VERSION

Journey To Your Best 2024

Virtual Internship Program 2024

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01 Top Down Approach

WHAT

What is the Top-down approach?

WHY

Why should the Top-down approach be applied?

HOW

How to implement the Top-down approach effectively?

Top down Approach

The top-down approach is a problem-solving methodology that starts with the big picture and gradually breaks it down into smaller, more manageable pieces

Advantages of Top-down approach

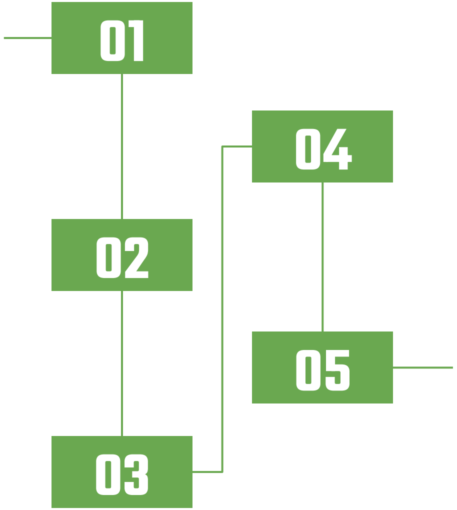
Provides an Overview, Risk Reduction, Increases Efficiency

Gives programmers a holistic view of the project

Reduces risks by identifying potential issues

Increases efficiency by focusing on crucial components

How to Implement Top-down approach



01

Start with the overall goal or objective

Define the project's goals and requirements

02

Break down the goal into smaller sub-goals

Analyze the project into smaller components

03

Decompose each sub-goal further

Identify functions and responsibilities for each component

04

Execute the tasks in order

Design and develop each component

05

Evaluate and iterate

Integrate components to form the complete product

Comparison of Top-down and Bottom-up approach

Top-down approach

Pros

- Provides an overview
- Risk reduction
- Increases efficiency

Cons

- May overlook important details
- Less flexible to changes in requirements

Bottom-up approach

Pros

- Focuses on important details
- Flexible with changes in requirements

Cons

- May lack an overview
- Can lead to time and effort wastage

Coordination between Top-down and Bottom-up approach

Use Top-down to determine goals and requirements

Use Bottom-up to analyze smaller components and identify functions

Use Top-down to design and develop larger components

Use Bottom-up to integrate components into the final product

02 Learning How To Learn And Lear Fast

Learning How to Learn and Fast Learning for Programmers

Anyone can learn how to learn and fast, regardless of age, educational background, or profession

Programmers, in particular, need to emphasize continuous learning to keep up with the rapid development of technology

What is Learning How to Learn And Learn Fast?

Learning How To Learn

- The process of developing effective learning skills and strategies
- Involves understanding one's own learning style, setting learning goals, and creating a study plan

Learn Fast

- The ability to quickly absorb and process new information effectively
- Involves focus, memory retention, understanding, practical application, and review

When and Where to Apply Learning How to Learn And Fast Learning?

Learning How To Learn

- Apply when wanting to learn something new, such as a new programming language, skill, or concept
- Can be done anywhere: at school, at home, in class, or online

Learn Fast

- Apply when wanting to learn something new **within a short timeframe**, such as a new programming language, skill, or concept.
- Can be done anywhere: at school, at home, in class, or online.

Why Learning How to Learn is Important And Programmers Need to Learn Fast?

Learning How To Learn

- Addresses the challenges of the ever-changing field of programming
- Helps programmers learn new languages, adapt to technological changes, solve complex problems, and enhance creativity

Learn Fast

- Update knowledge and skills to keep up with rapidly changing technology
- Increases career opportunities as employers value programmers with quick learning abilities

How to Implement the Learning How to Learn Process And Learn Fast Process?

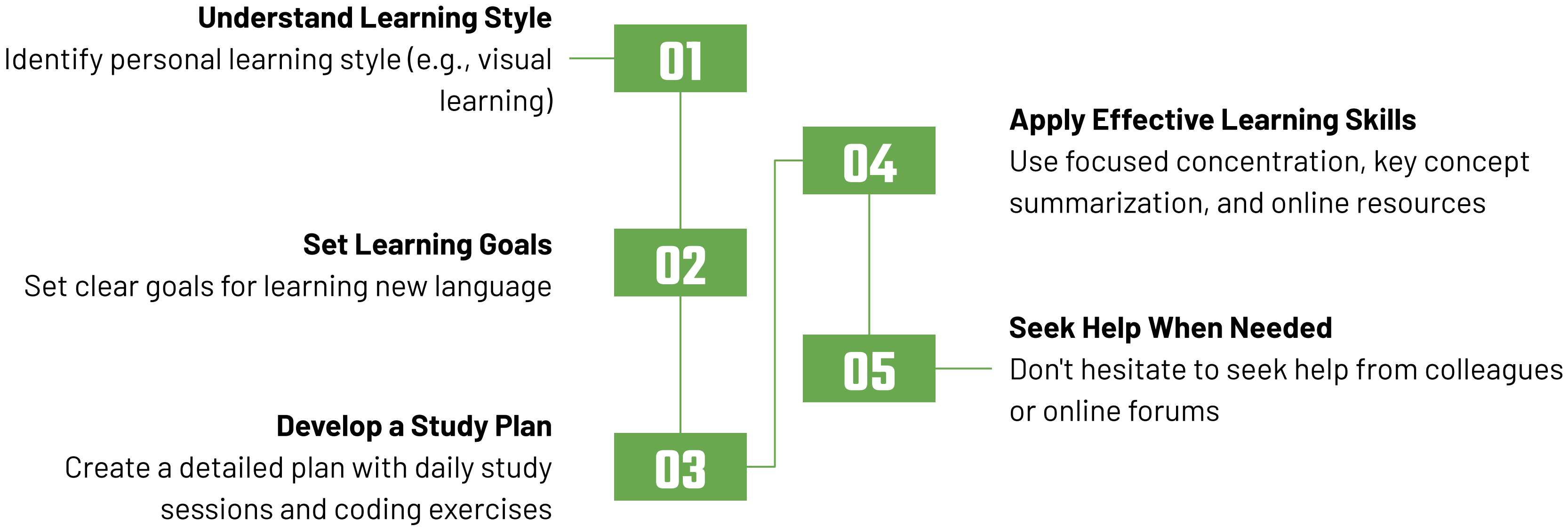
Learn Fast

- Understand your learning style, set goals, and develop a study plan
- Apply fast learning skills such as focus, review, using learning tools and resources, and seeking help when needed

Learning How To Learn

- Understand your learning style, set goals, and develop a study plan
- Apply effective learning skills like focus, identifying key points, practicing, and reviewing

Learning New Programming Language



01 Understand Learning Style
Identify personal learning style (e.g., visual learning)

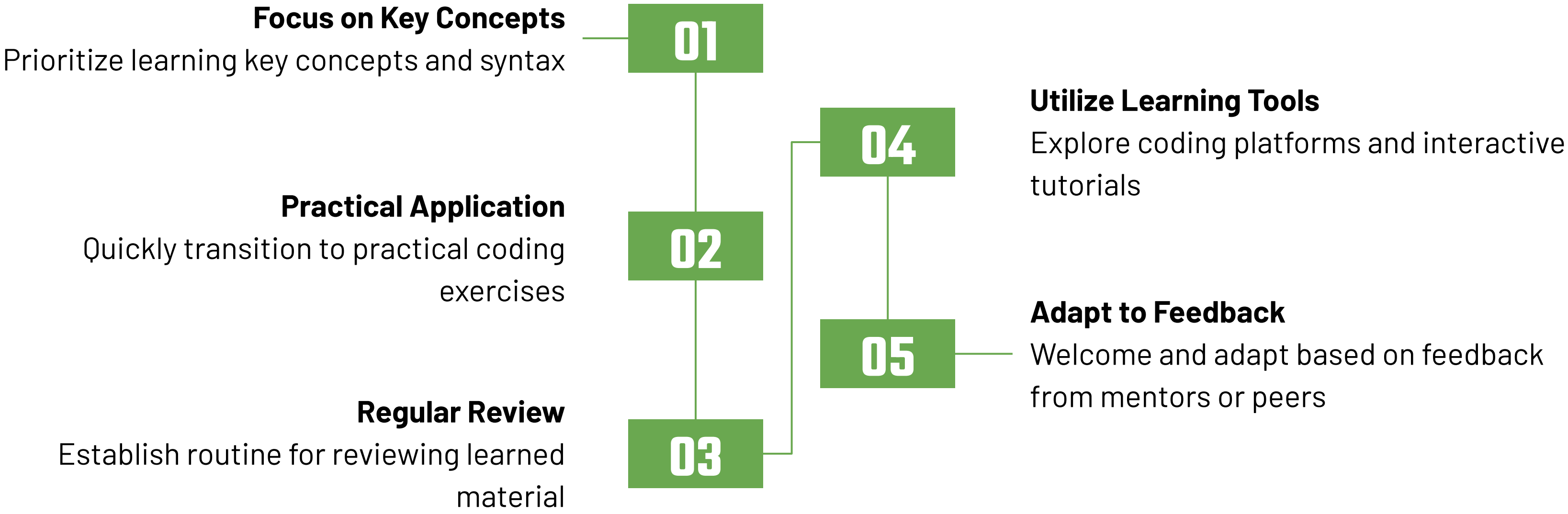
02 Set Learning Goals
Set clear goals for learning new language

03 Develop a Study Plan
Create a detailed plan with daily study sessions and coding exercises

04 Apply Effective Learning Skills
Use focused concentration, key concept summarization, and online resources

05 Seek Help When Needed
Don't hesitate to seek help from colleagues or online forums

Learning New Programming Language



01 **Focus on Key Concepts**
Prioritize learning key concepts and syntax

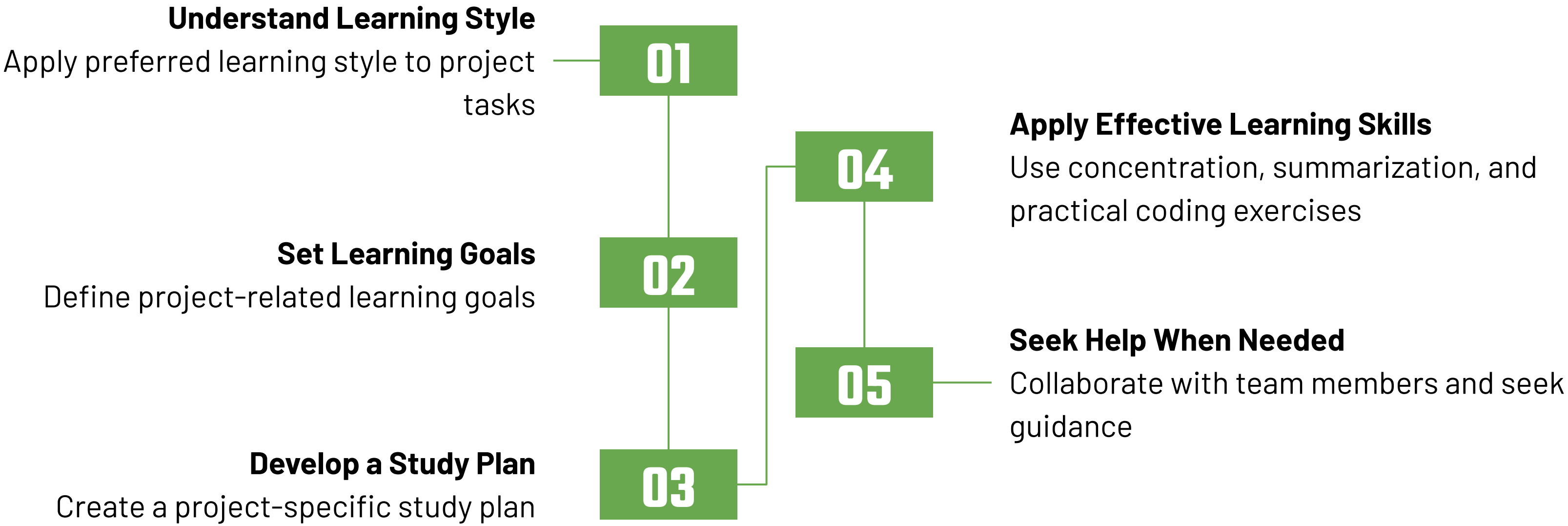
02 **Practical Application**
Quickly transition to practical coding exercises

03 **Regular Review**
Establish routine for reviewing learned material

04 **Utilize Learning Tools**
Explore coding platforms and interactive tutorials

05 **Adapt to Feedback**
Welcome and adapt based on feedback from mentors or peers

Application in a Real Project



01 Understand Learning Style
Apply preferred learning style to project tasks

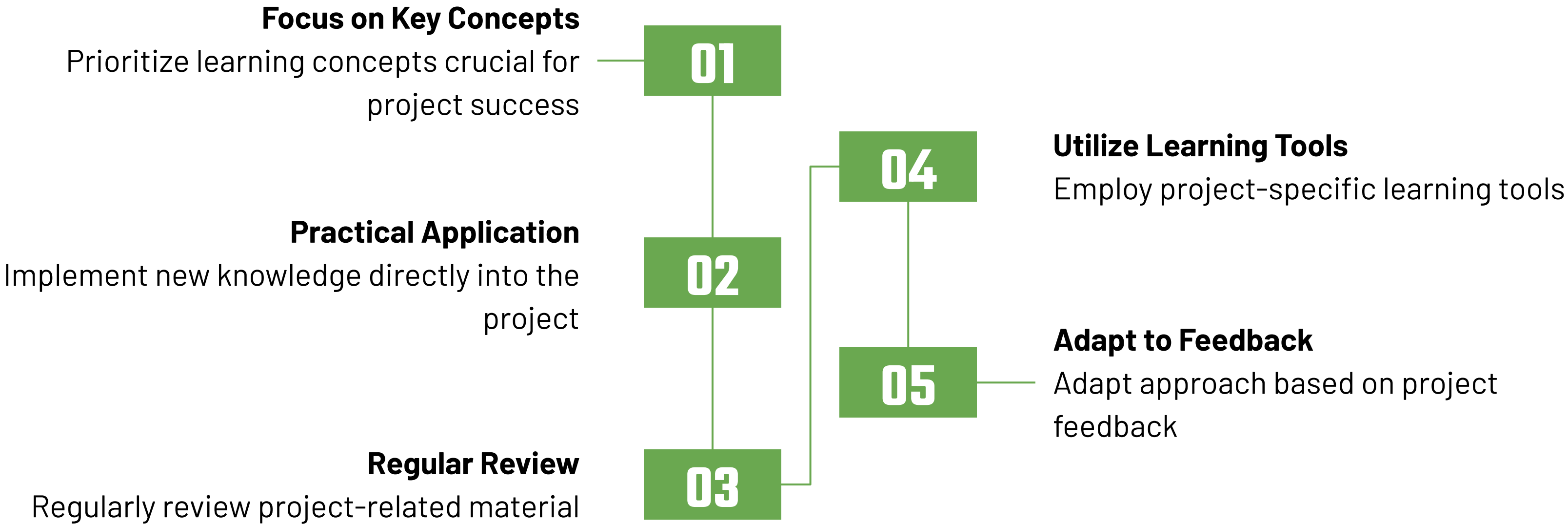
02 Set Learning Goals
Define project-related learning goals

03 Develop a Study Plan
Create a project-specific study plan

04 Apply Effective Learning Skills
Use concentration, summarization, and practical coding exercises

05 Seek Help When Needed
Collaborate with team members and seek guidance

Application in a Real Project



01 **Focus on Key Concepts**
Prioritize learning concepts crucial for project success

02 **Practical Application**
Implement new knowledge directly into the project

03 **Regular Review**
Regularly review project-related material

04 **Utilize Learning Tools**
Employ project-specific learning tools

05 **Adapt to Feedback**
Adapt approach based on project feedback

03 Autonomy At Work

WHO

Who benefits from autonomy at work in the field of software development?

WHAT

What does autonomy at work mean for a software developer?

WHEN

When is autonomy crucial in the career of a software developer?

WHERE

Where does autonomy come into play in the work environment for software developers?

WHY

Why is autonomy important for a software developer's professional growth?

HOW

How can a software developer achieve autonomy in their work? How does autonomy contribute to the effectiveness and innovation in software development?

Who benefits from autonomy at work in the field of software development?

Programmers and Autonomy

- Autonomy allows control over tasks, decision-making, learning, and creativity
- Increased job satisfaction, motivation, and higher efficiency

Benefits for Companies

- Autonomous programmers are proactive, more responsible, and contribute more to projects
- Results in higher-quality products, faster development times, and fewer errors

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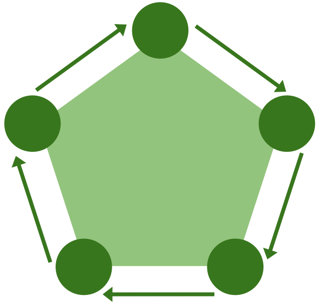
What does autonomy at work mean for a software developer?



Control over tasks

Decision-making

Learning and Development

Innovation and Proactivity

Problem Solving

Autonomy is a crucial factor in one's career

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When is autonomy crucial in the career of a software developer?

- When programmers have experience and solid skills.

- When projects demand creativity and flexibility

- When working in a flat, less hierarchical environment

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Where does autonomy come into play in the work environment for software developers?

Personal planning, choosing tools, and methods

Active participation in meetings, providing input, and proactively discussing technical issues

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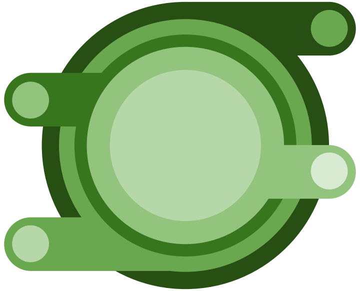
Why is autonomy important for a software developer's professional growth?



Increased job satisfaction

Promotion of creativity and innovation

Improvement of skills and knowledge

Enhancement of job effectiveness

How can a software developer achieve autonomy in their work?

- Continuous improvement of skills and knowledge
- Proactive communication and discussion with colleagues, managers, and experts
- Offering ideas, actively solving problems
- Seeking learning and development opportunities

How does autonomy contribute to the effectiveness and innovation in software development?

- Enhanced motivation and responsibility
- Improved product quality
- Accelerated development speed and promotion of innovation
- Autonomous programmers are a valuable resource

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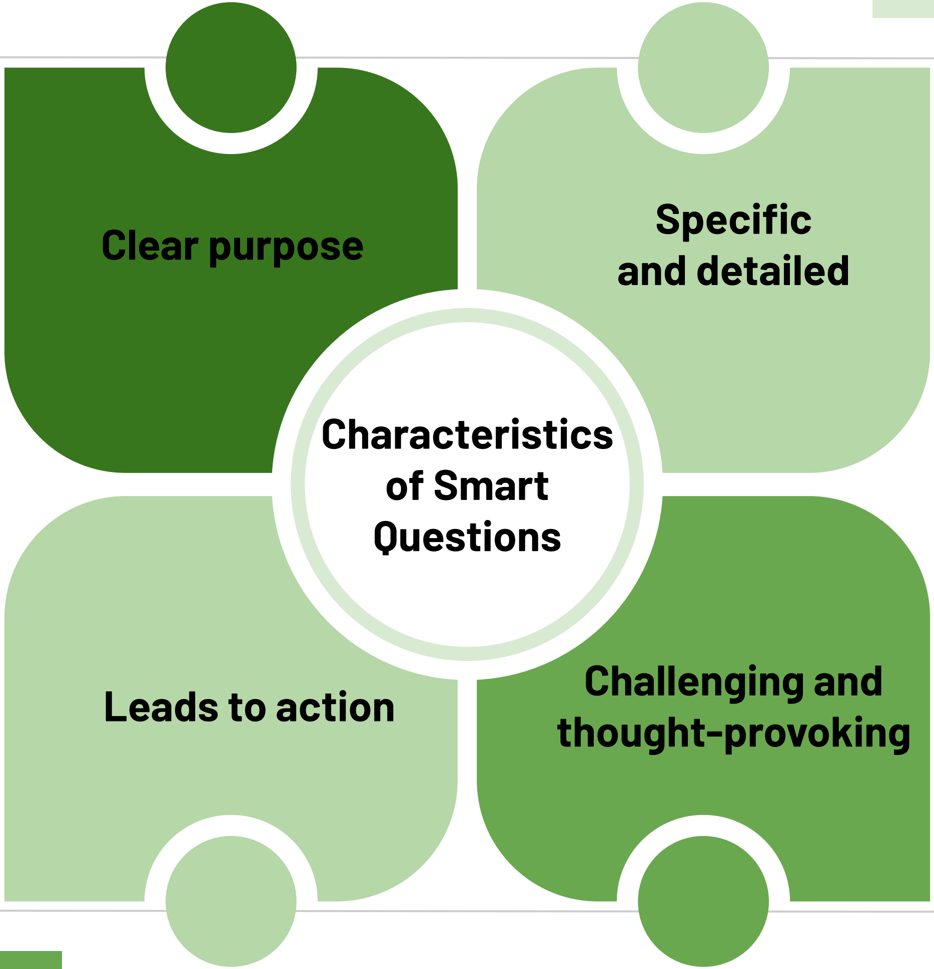
04 The Smart Question



Characteristics of Smart Questions

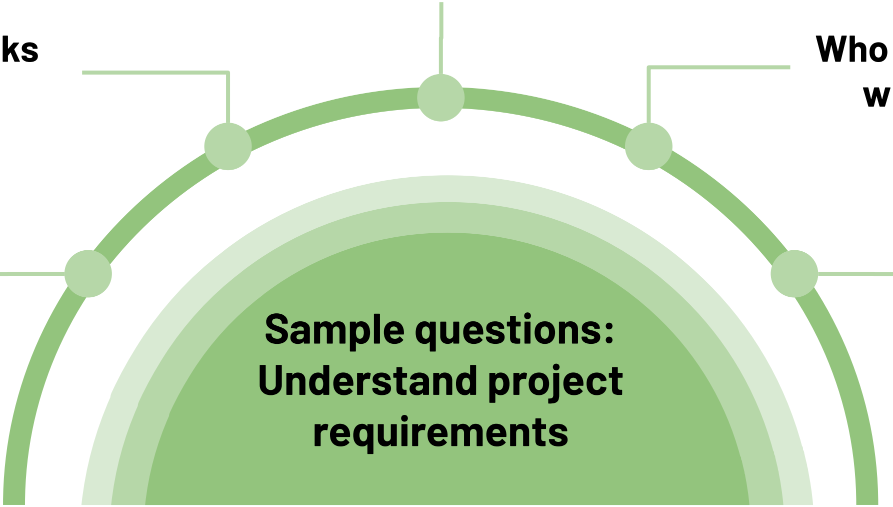
Clear purpose

Specific and detailed

Leads to action

Challenging and thought-provoking

Sample questions: Understand project requirements



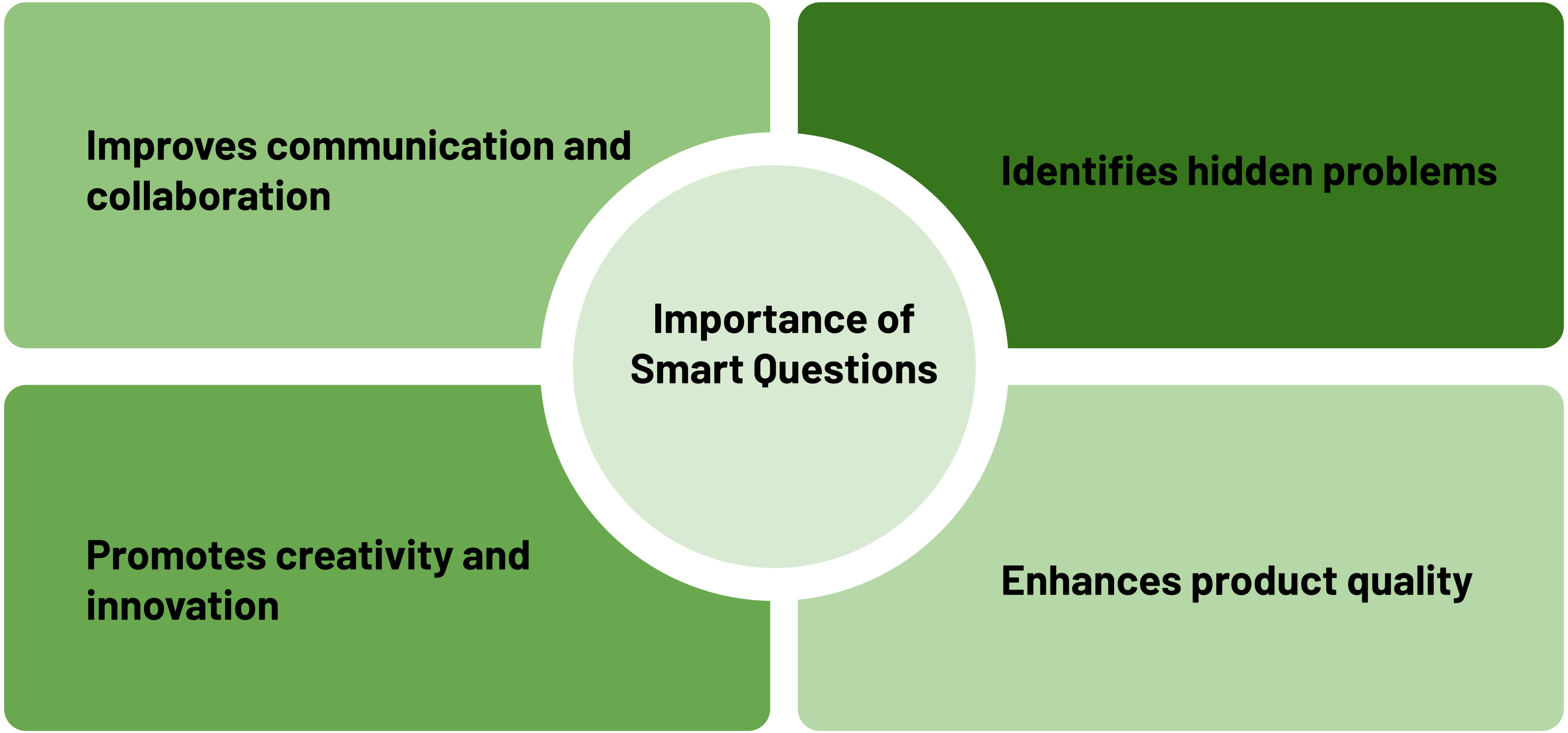
How is the system structured?

What challenges and risks are hidden?

What are the criteria for evaluating product quality?

Who are the end-users, and what are their needs?

What is the main goal of the project?



Importance of Smart Questions

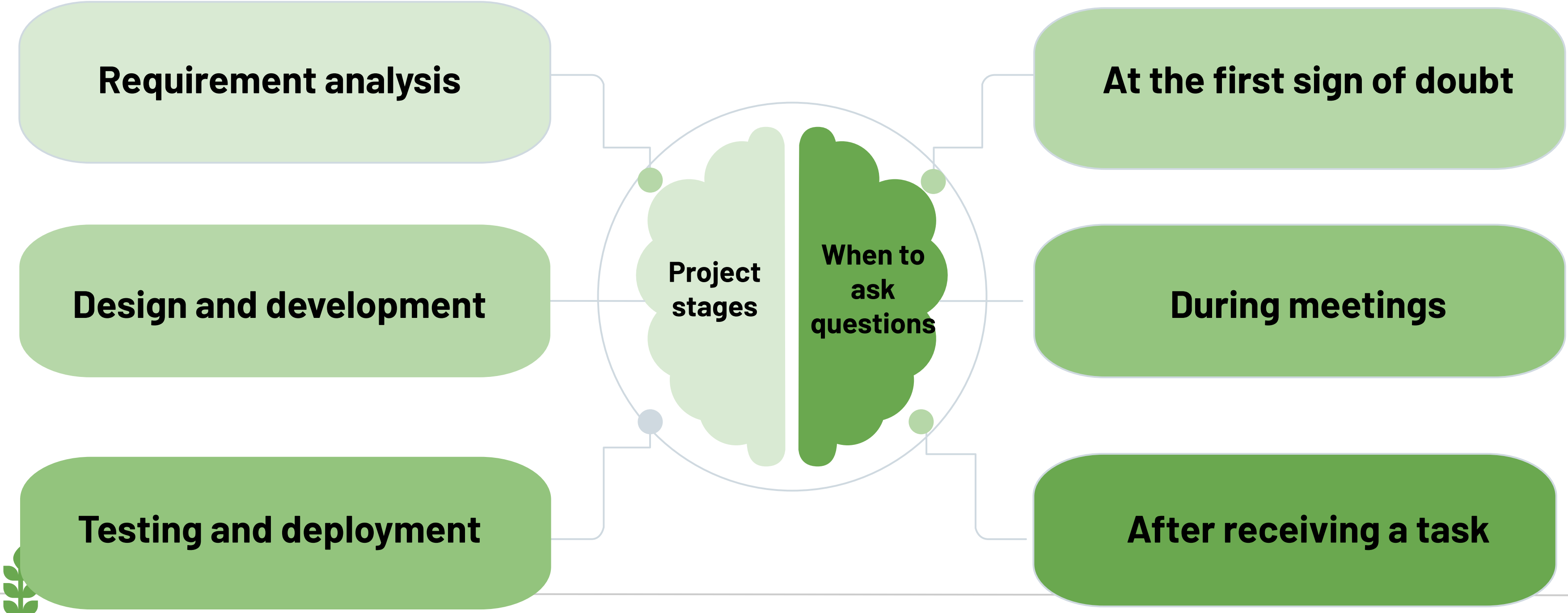
Improves communication and collaboration

Identifies hidden problems

Promotes creativity and innovation

Enhances product quality

Stages and Timing of Asking Questions



Requirement analysis

Design and development

Testing and deployment

Project stages

When to ask questions

At the first sign of doubt

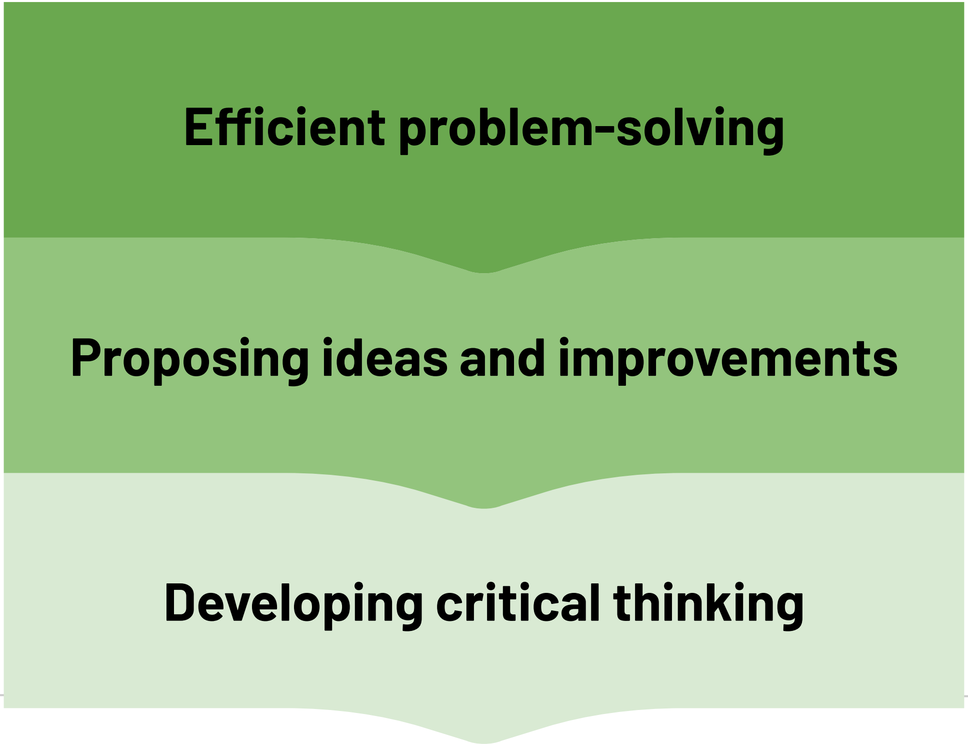
During meetings

After receiving a task

Individuals to Ask Questions and Questioning Skills

Key individuals	Questioning skills
Project managers	Regular practice
Software architects	Research relevant topics
Business analysts	Pay attention to how questions are framed
Testers	Actively listen

Roles of Smart Questions



Efficient problem-solving

Proposing ideas and improvements

Developing critical thinking

Thanks!

Do you have any questions?

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