



**What's topdown approach
and how to apply it?**



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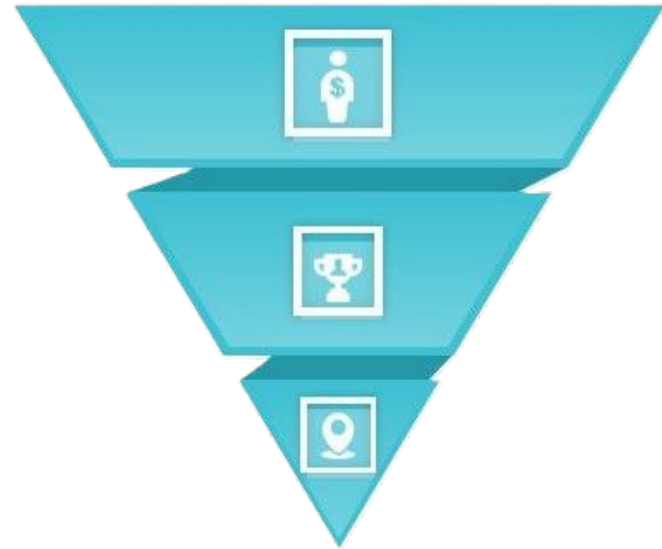
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Overview about topdown approach

The top-down approach is a strategy for tackling problems, projects, or systems by starting with the big picture and then progressively breaking it down into smaller, more manageable components.

Imagine it like zooming in on a map from a satellite view to see individual streets and buildings.

Top-Down Approach



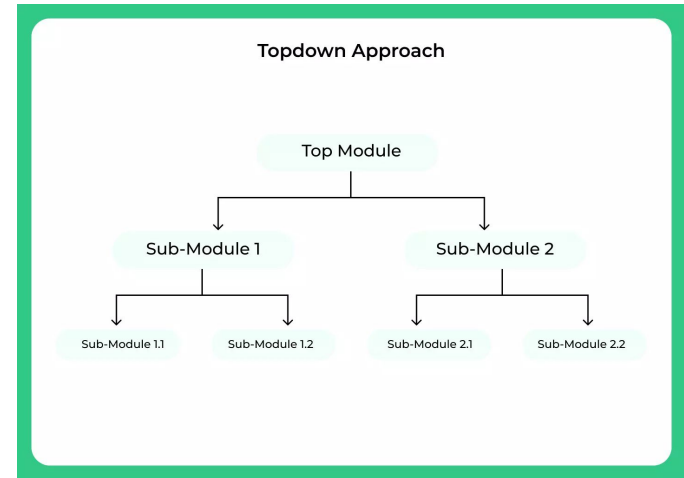


How to apply topdown approach

- **Problem-solving:** Define the overall problem you want to solve, then break it down into smaller, more manageable sub-problems. Analyze each sub-problem and develop solutions, eventually building towards a solution for the overall problem.
- **Project management:** Begin by outlining the project's goals, deliverables, and timeline. Then, break down each major task into smaller, actionable steps and assign them to team members.
- **Writing:** Start with a thesis statement or main idea, then develop supporting arguments or evidence through paragraphs and sentences. Each sentence should contribute to the main idea.
- **Goal setting:** Define your ultimate goal, then set smaller, incremental milestones that lead you towards achieving it. These milestones should be specific, measurable, achievable, relevant, and time-bound (SMART goals).

Topdown approach in development

- 1. Define the overall requirements:** This includes identifying the goals and objectives of the software, as well as the target audience and their needs.
- 2. Create a high-level architecture:** This involves outlining the main components of the software and how they will interact with each other.
- 3. Decompose the components:** Break down each component into smaller sub-components until you reach individual modules or functions.
- 4. Design and implement the modules:** Once you have identified the modules, you can start designing and implementing them.
- 5. Integrate and test the components:** Once all the modules are developed, you need to integrate them together and test the software to ensure it meets the requirements.





Advantages of topdown approach

- **The level of complexity:** For complex problems or projects, the top-down approach can provide a helpful framework for organization.
- **The need for control:** If it's important to maintain control over the overall direction of a project, the top-down approach can be beneficial.
- **The availability of information:** If the necessary information is readily available at the top level, the top-down approach can be efficient.



Remember when apply topdown approach

- **Can be inflexible:** It can be difficult to change the architecture of the software once it has been designed, especially if the changes are required in the lower levels.
- **Requires upfront planning:** It takes time and effort to create a high-level architecture, which can be a challenge for small projects or projects with tight deadlines.
- **May not be suitable for all projects:** The top-down approach is not always the best choice for projects where the requirements are not well-defined or where there is a need for flexibility.



*Thank
you!*