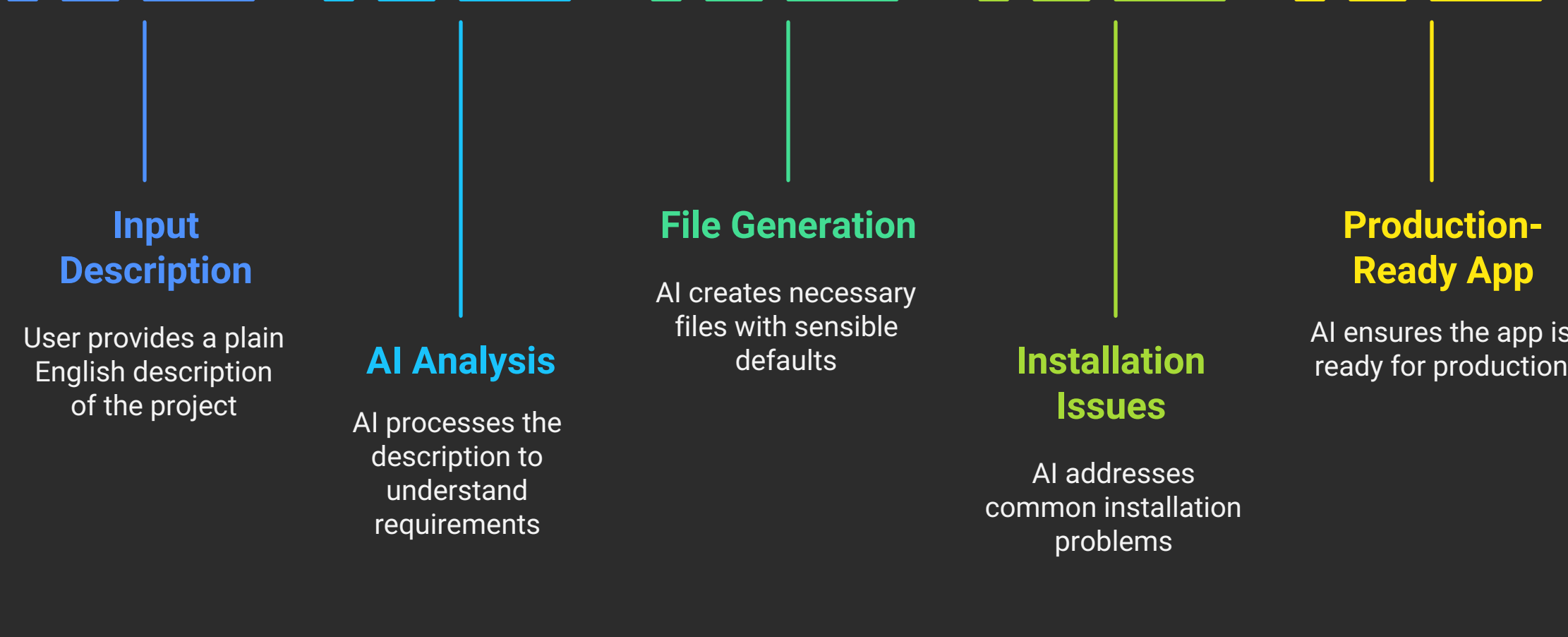


AITalk: Automated React Project Generator

This document outlines the features and functionality of the AITalk tool, designed to automatically generate a modern, production-ready React application based on a plain English description. By leveraging AI, AITalk simplifies the project setup process, ensuring that all necessary files are created with sensible defaults, while also addressing common installation issues.

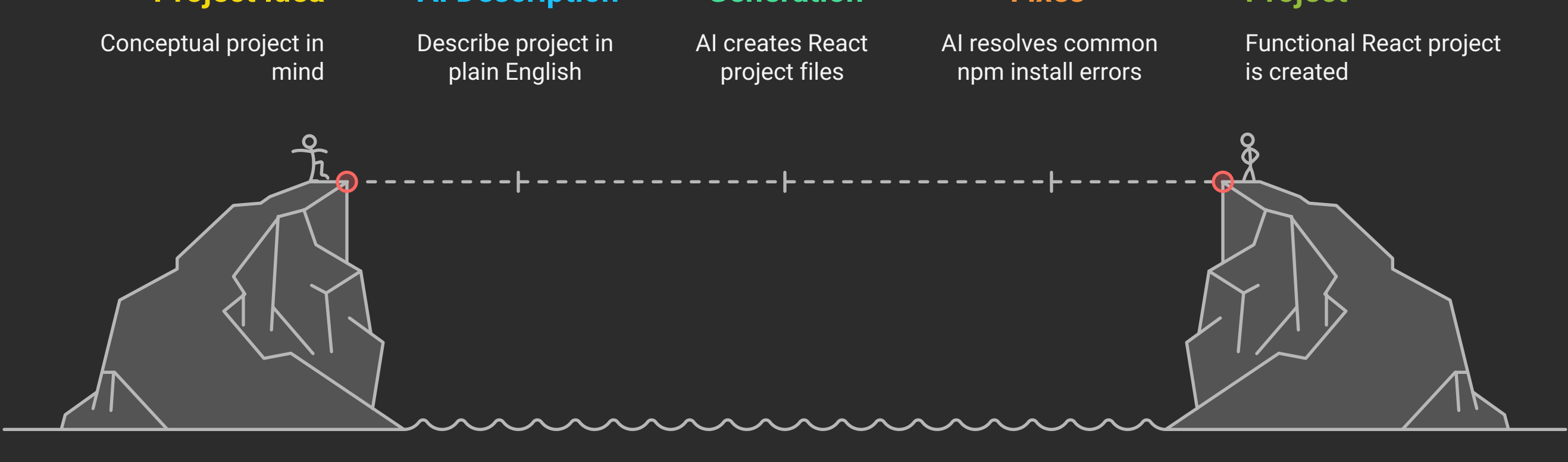
AITalk Project Generation Process



Purpose

Automatically generate a modern, production-ready React project from a plain English description using AI. This includes all necessary files, sensible defaults, and even auto-fixes for common npm install issues.

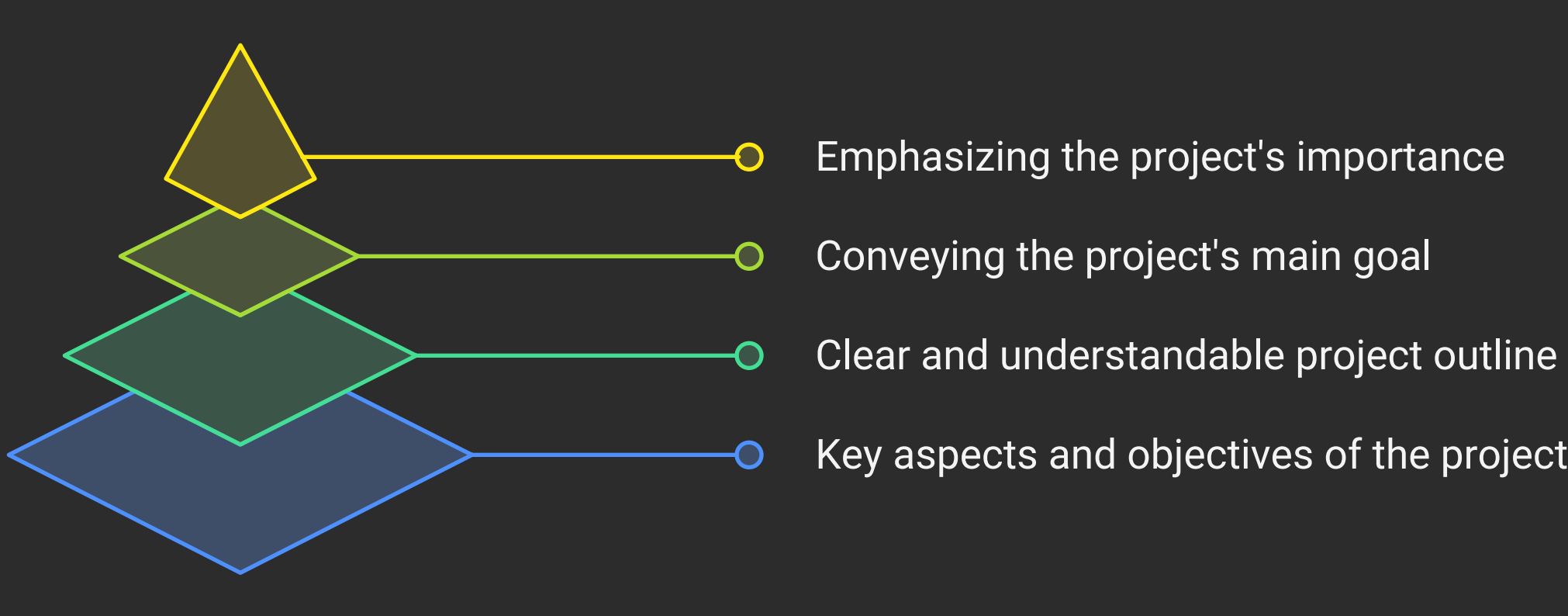
React Project Generation



Usage

The argument is your project description in natural language.

Project Description Pyramid



How It Works

Project Name Generation

The AI generates a short, hyphenated project name from your description (e.g., "sales-dashboard").

File List Generation

The AI is prompted to return a JSON array of all files needed for a modern React 18 app [e.g., ["package.json", "src/App.js", "public/index.html"]].

File Content Generation

For each file, the AI is prompted (with context of previously generated files) to generate the full content—no markdown, just code/text.

File Writing

Files are written to disk in a new project directory.

Dependency Injection

Ensures react-scripts and a start script are present in package.json.

Git Initialization

Runs git init, adds all files, and makes an initial commit.

Dependency Installation

Runs npm install in the project directory. If npm install fails, the error and package.json are sent to the AI for auto-repair, and npm install is retried.

Project Startup

Runs npm start, and if port 3000 is busy, auto-confirms running on another port.

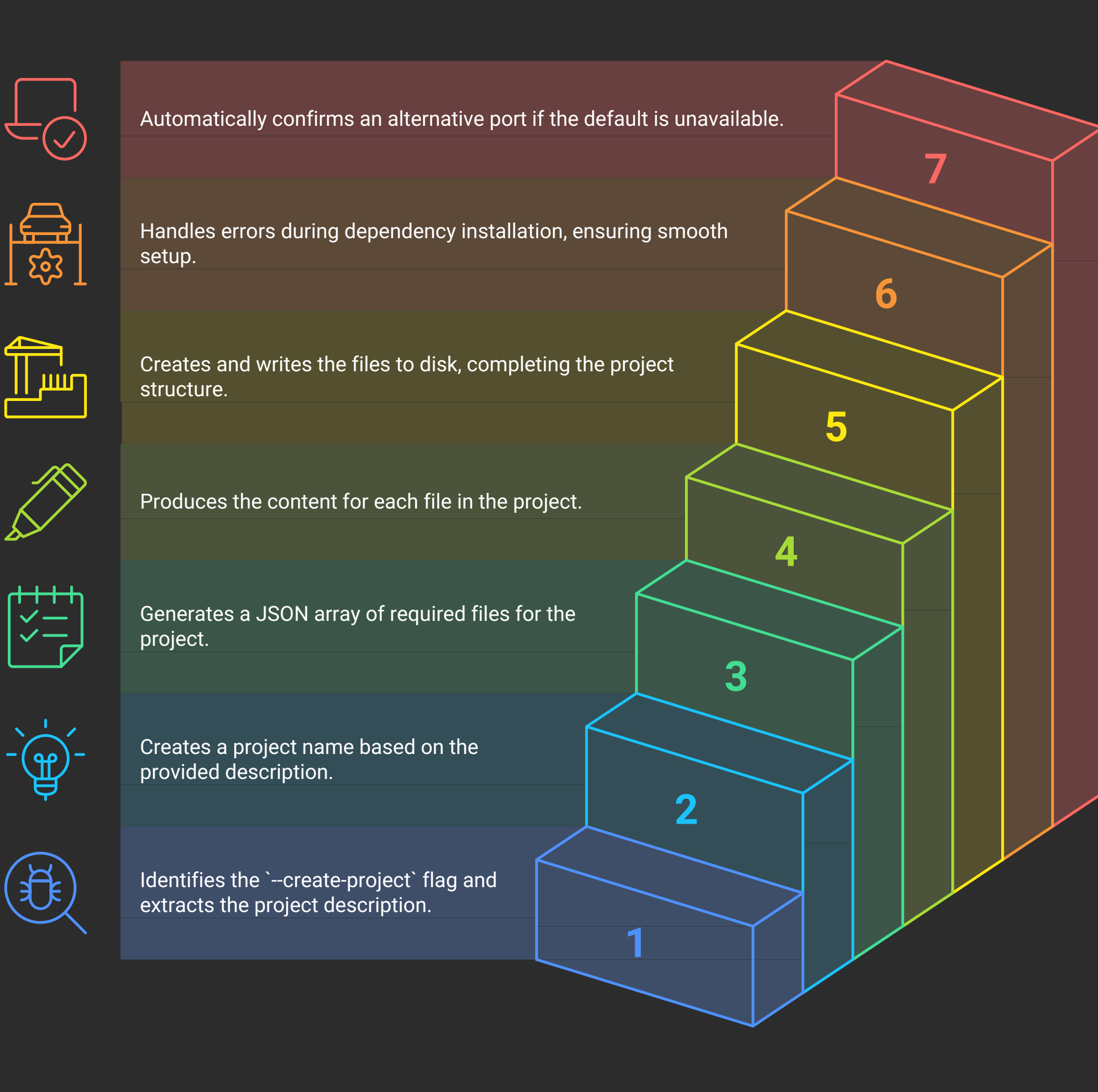
AI-Driven React Project Setup



Code Explanation

- Entry Point: aitalk.py
 - Detects the --create-project flag, extracts the description, and calls build_project.
- Main Logic: project_builder.py
 - Project Name: Generated based on the description.
 - File List: Generated JSON array of required files.
 - File Content: Generated content for each file.
 - Project Build: Files are created and written to disk.
 - Auto-Repair Example: Handles errors during npm install.
 - npm start with auto-confirm: Automatically confirms alternative port if needed.

Building a React Project



Tips

- Requires Node.js, npm, and git installed.
- If you see errors during npm install, the tool will attempt to auto-fix them using AI.
- All files are generated in a new directory named after your project.

Project Setup and Error Handling

