

**Are you tired of spending endless hours on manual coding and documentation?**



**It's time-consuming, error-prone, and diverts your focus from coding to writing.**

# smartcoder

Clear Code, Clear Docs: Automate workflow with smartcoder

<https://lablab.ai/event/codestral-ai-hackathon>



---

# Objectives



Automate the creation of accurate code & detailed documentation for codebases.



Enhance understanding and maintenance of code, especially for large and open-source projects



# Features Overview

01

## Code Parsing

Extracts key components

02

## Natural Language Generation

Employed Codestral

03

## Examples and Usage

Using classes and function effectively

04

## Visualization

Enhancing comprehension



# Features Overview

05

## Code Snippets

Generates code based on natural language descriptions

06

## Test Case generation

Provides coverage reports

07

## Code reviewer

Analyzes code, identify bugs and suggest improvements

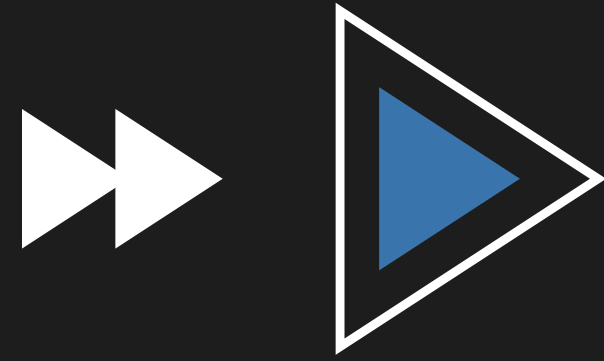
08

## Documentation Generator

Downloadable comprehensive documentation



# Market Value



01

## Rapid Market Expansion

GenAI tools like this valued at \$6.6 billion in 2023 & Projected to reach \$51.8 billion by 2030

02

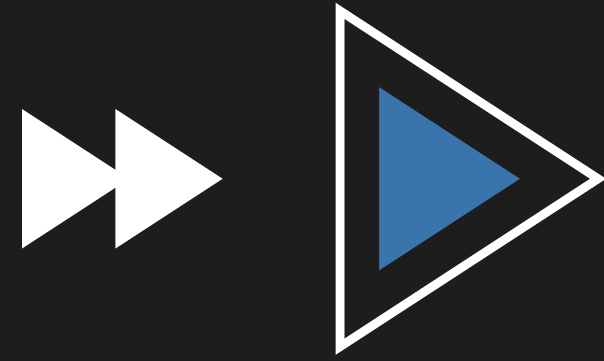
## Significant Investments

Hundreds of millions of dollars allocated annually

03

## Increased Adoption

Growing across industries & ensuring comprehensive documentation



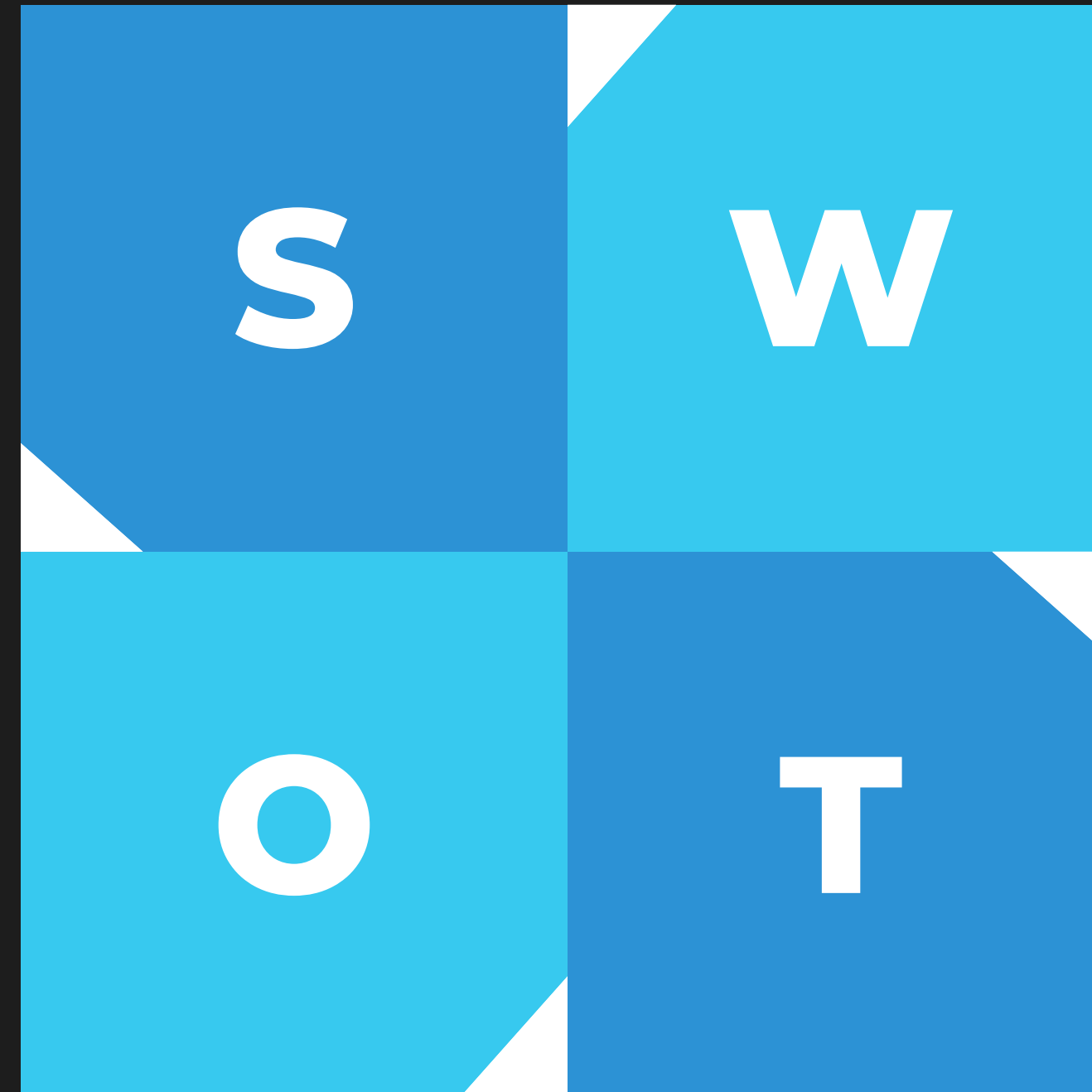
# SWOT Analysis

## STRENGTHS

- Automation
- Enhanced code quality and reliability

## OPPORTUNITIES

- Growing demand
- Increasing complexity
- Expansion into other software development areas



## WEAKNESSES

- Dependence on accurate code parsing
- Customization for specific use cases

## THREATS

- Rapidly evolving AI and software standards
- Potential resistance by traditional developers



# Future Prospects

## Visualization

Diagrams, Interactive visualizations for code

## Integration

Integration with CI/CD pipelines and IDEs

## User Feedback Loop

A robust feedback loop to continuously gather user input and improve the tool

# Meet the team

- Tayyaba Tabassum
- Osama Ghaffar
- Sheroz Arshad
- Zeshan Ahmad
- Zartashia Afzal
- Quaid Khalid



{  
[

}  
]

"  
/

**DEMO**



ing