

## ***What We're Building***

We are building a product that will be like a companion for a contributor, a person might be an open-source contributor or an employee.

These are the features of the tool:

- Can Generate Code files
- Can Explain particular concept or code file in the code base
- Code summarization
- Code reviews can be made easier
- Can answer general question (outside codebase)
- Can be used as an assistant to help with coding tasks

This makes a person understand the codebase quickly and can code efficiently and can reduce time to build features. Overall, this tool can help contributors (from open-source or employees) to be more productive and efficient.

Tool's version history:

- In **v1.0**, we made a tool which is compatible with LLM openai's chatgpt. This supports only Solidity. Just by user prompt, our tool will generate code and user can also improvise this code by extra prompts. At last our tool will generate a .sol smart contract file to make users download the file.
- **v1.0.1**, same features as v1.0 but in this version instead of openai we went with palm2 (text-bison-001). Our tool supports solidity and users can download .sol files from the prompt. But no improvisation through additional prompts.
- **v1.2**, we combined both v1.0 and v1.0.1, now our tool supports both LLMs openai's chatgpt and palm2. Our tool supports solidity. At last our tool will generate a .sol smart contract file to make the user download the file.

- Chatgpt support memorization this helps user to make improvisation on the generated code just by additional prompts , but results were not that satisfying.
  - Palm2 results were good compared to chatgpt 3.5 turbo. But palm2 doesn't support memorization.
- **v1.2.1**, we are here right now. One feature added to v1.2 that is support for Golang. Now users can generate Go smart contracts.
  - **v2**, users will be able to fine-tune the LLM with their own custom data. Supported files are txt files, csv files, pdf, doc files, etc. You can check the LLMs documentation for more information. In addition to the existing LLMs, we are trying to get Llama2 13B parameters support. Programming files are converted to JSON or txt files for fine-tuning. (This is in the testing phase, so the results cannot be determined correctly. The points mentioned above may change based on the results of the test phase.)
  - In future versions we really wanted to get Llama2 70B parameters model support, but we might be short of the computation power that it required.

### ***Additional Goals:***

1. Add a Vulnerability checker.
  2. Add a Meeting scheduler. It's like adding a meeting by giving one simple prompt.
  3. Simple task scheduler. It allows one person to assign tasks to another person with one simple prompt.
- 2 and 3 are useful in case of company, club, class etc. not for open source contributors.

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