

# RefactorGPT

LABLAB HACKATHON

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# RefactorGPT

By Ray Myers

Use AI to suggest, use your IDE to refactor!

[In OpenAI GPT Store](#)

# RefactorGPT Features

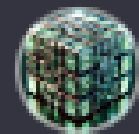
- Code goes in, suggestions come out
- Any language
  
- Recommend **renames** of variables, functions, etc...
- Generate **comments**
- Identify **code smells**

# Example: Hello World



**You**

```
x = "hello world"; print x
```



**RefactorGPT**

Available Hot Keys:

- r: Renames
- s: Smells
- c: Comment
- l: Set Language

# Example: Sloppy Fibonacci




You


```
public ArrayList Between(int from, int to)
{
    int last = 1;
    int penultimate = 0;
    ArrayList results = new ArrayList();
    results.Add(penultimate);
    results.Add(last);

    while(last < to)
    {
        int fib = last + penultimate;
        penultimate = last;
        last = fib;
        if (fib > from && fib < to) results.Add(fib.ToString());
    }
    return results;
}
```





# Renames, Smells, Comments

 You  
r


 RefactorGPT


- from -> startValue
- to -> endValue
- last -> currentFibonacci
- penultimate -> previousFibonacci
- results -> fibonacciNumbers
- fib -> nextFibonacci
- Between -> GetFibonacciNumbersInRange


 You  
s

 RefactorGPT

- Lack of type specification for ArrayList
- Method name 'Between' is not descriptive
- Magic numbers (1 and 0) used without explanation
- Method potentially returns a mix of integers and strings in the ArrayList
- No validation for input parameters (e.g., ensuring `from` is less than `to`)

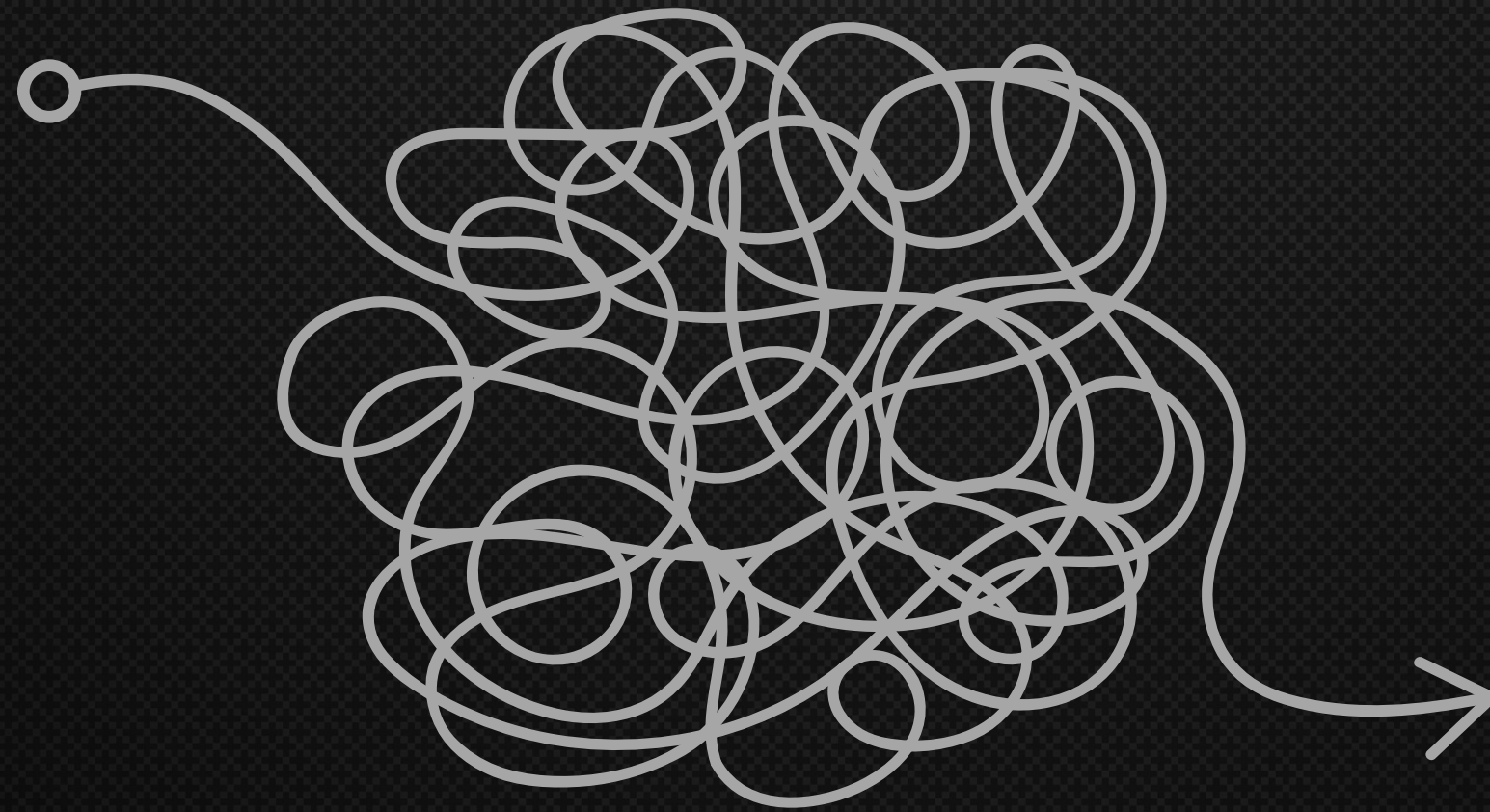
 You  
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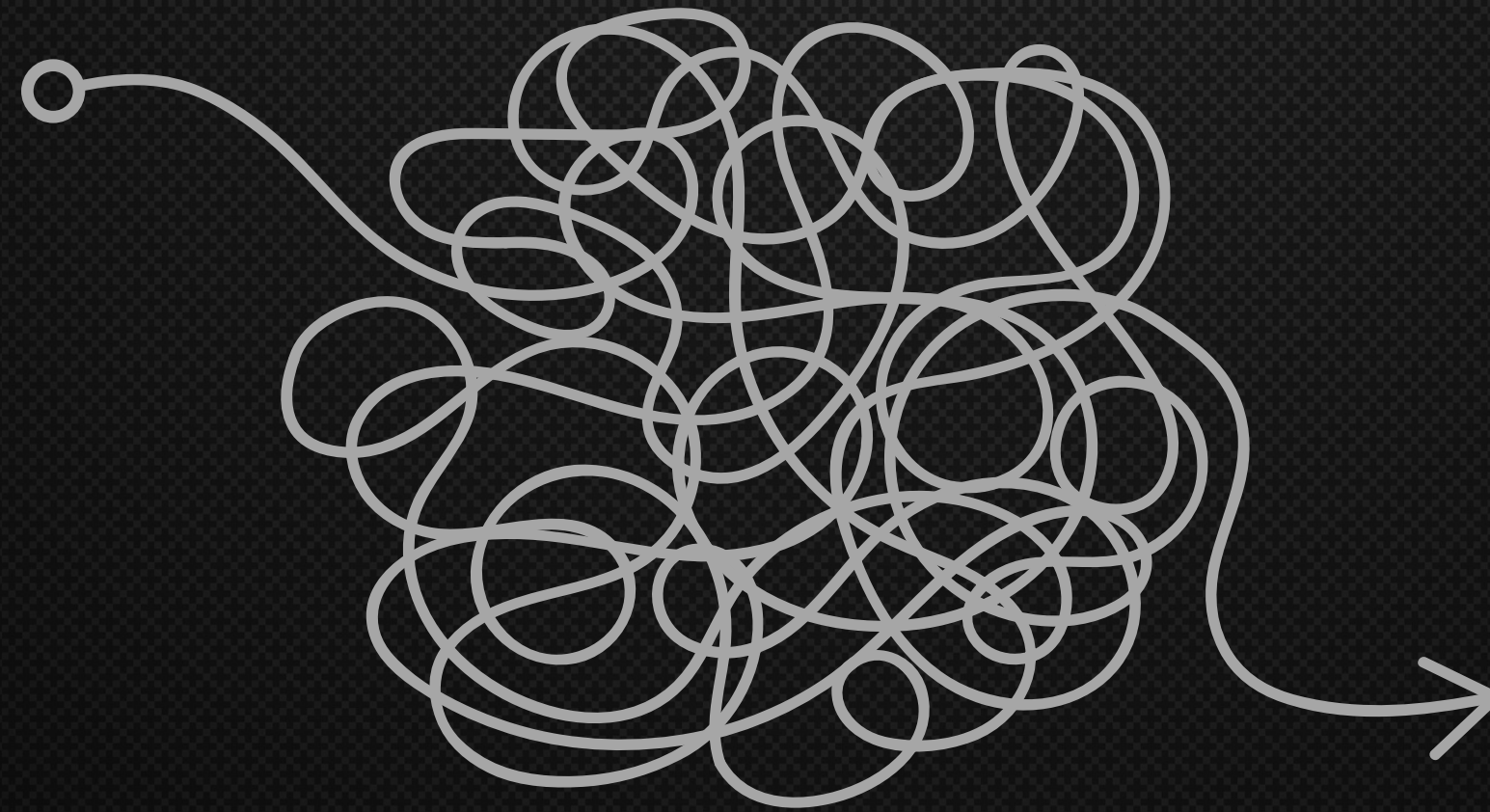
```
arduino Copy code  
  
// This method calculates Fibonacci numbers in a given range  
// 'from' and 'to' specify the range limits.  
// It initializes the first two Fibonacci numbers, then iterates  
// Each calculated Fibonacci number within the specified range  
// It returns an ArrayList containing the Fibonacci numbers  
// Note: This method needs refinement for type safety and in
```

# Untangle Code Like a Knot



You don't need to understand the whole knot, you only need to know where to pull next

# Untangle Code Like a Knot

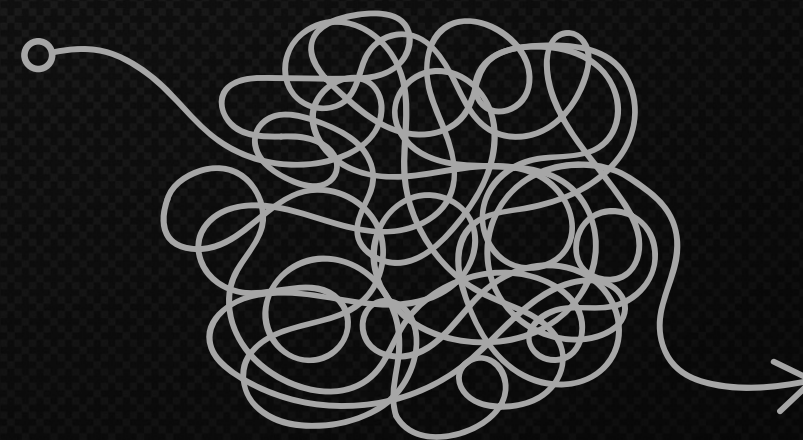


Suggestions will integrate directly into the IDE!



# Any good knot has snags!

We originally tried LangChain OpenGPTs  
Hit some difficulties deploying to GCP  
Discovered and fixed bugs in OpenGPTs  
(code in chat)



# Thank You

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