

How Junior Engineers Can Utilize ChatGPT

國泰世華銀行

Samuel Luo

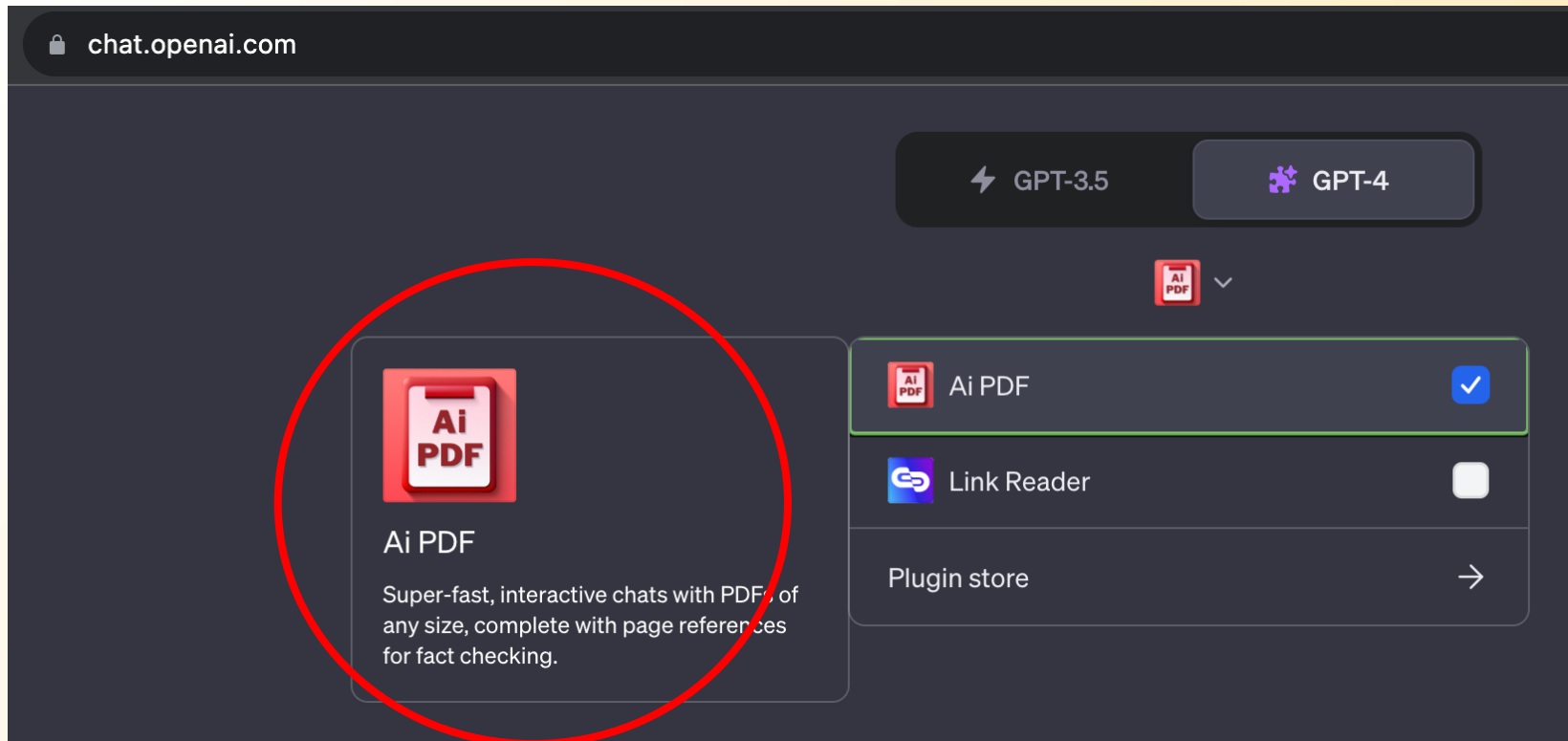
samuelluo1.work@gmail.com



Content

- Introduction to ChatGPT
- Examples of using ChatGPT
- Summarize

Introduction to ChatGPT

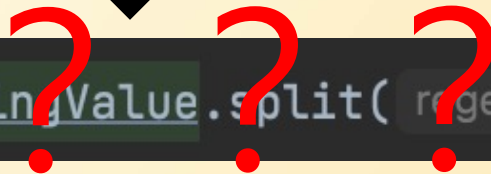


Ex1. Unfamiliar with Java

```
int index = stringValue.indexOf("/");  
if (index > -1) {  
    stringValue = stringValue.substring(0, index);  
}
```

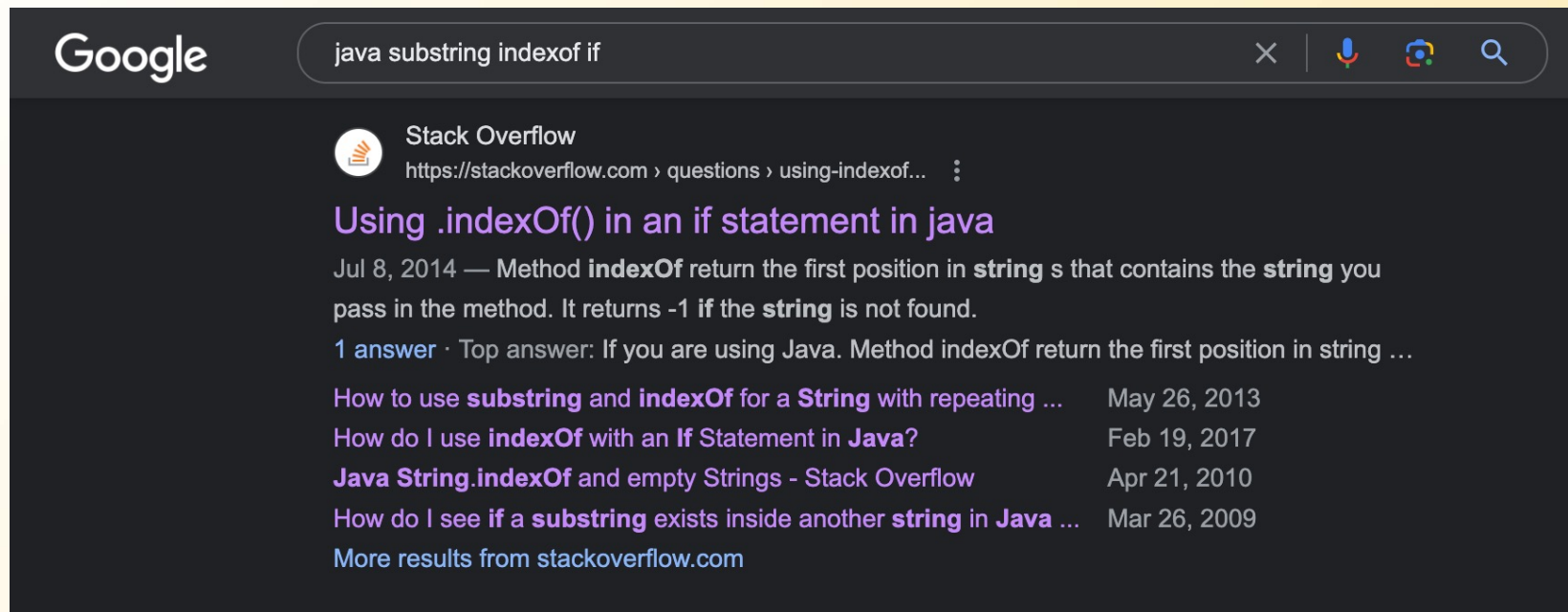


```
stringValue = stringValue.split(regex: "/")[0];
```



Ex1. Unfamiliar with Java

- If just using Google...



Ex1. Unfamiliar with Java



有沒有tricky的寫法 或是 import 方法



當然，有一些 "tricky" 的寫法可以達到同樣的效果，但這些方法可能會犧牲一些可讀性。以下是一個使用三元運算符的示例：

java

Copy code

```
String value = "your-string-here";  
int index = value.indexOf("/");  
value = index != -1 ? value.substring(0, index) : value;
```

或者，如果你真的想要一個簡單的一行解決方案，可以這樣：

java

Copy code

```
value = value.split("/")[0];
```

Ex2. Regex



我要寫一個正則：如果包含/handshakewb 則回傳 handshakewb，如果包含 /M****%%%/，則回傳M****%%%，而且*代表任意英文字母，%代表任意數字



根據您的需求，以下是一個正則表達式來匹配指定的模式：



regex

Copy code

```
(/handshakewb)|(/M[a-zA-Z]*\d*/)
```

```
(/handshakewb)|(/M[A-Z]{4}\\d{3}/)
```

Ex3. Unfamiliar with JUnit

```
public class TaskInterceptorTest {  
  
    private TaskInterceptor taskInterceptor;  
  
    @BeforeEach  
    void setUp() { taskInterceptor = new TaskInterceptor(); }  
  
    @Test
```


Ex3. Unfamiliar with JUnit



官方檔案哪裡有說 junit 為每個測試方法創建新的類實例



我為你找了JUnit 5的官方用戶指南。在其中，對於這個特性的描述可以在"Test Instance Lifecycle"部分找到。

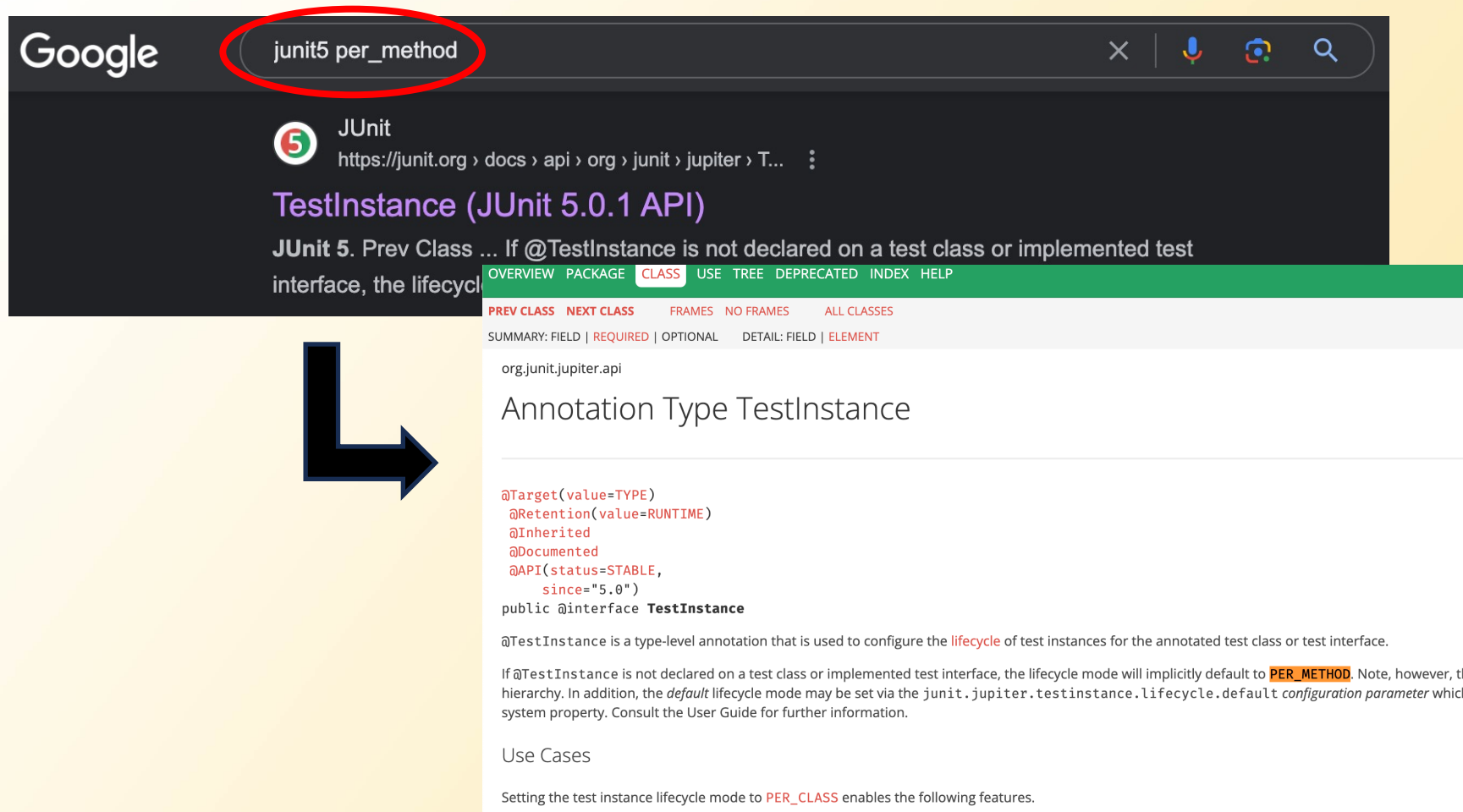


在JUnit 5中，可以選擇使用兩種不同的測試實例生命週期：

1. **PER_METHOD (默認)**：默認情況下，JUnit會為每個@Test、@RepeatedTest、@ParameterizedTest、@TestFactory和@TestTemplate方法創建新的測試實例。這與JUnit 4的行為相符，可以確保測試之間的完全隔離。
2. **PER_CLASS**：當測試類使用@TestInstance(Lifecycle.PER_CLASS)註解時，JUnit會為整個測試類創建一個測試實例。這允許你在多個測試方法之間共享測試實例的狀態。此選項可用於某些特定的情境，例如當使用`@BeforeAll`或`@AfterAll`方法時不想使用靜態方法。

在JUnit 5的官方用戶指南中，對於這個特性有詳細的說明。你可以查看該部分以獲得更多關於測試實例生命週期的資訊。

Ex3. Unfamiliar with JUnit



Google junit5 per_method

JUnit
https://junit.org > docs > api > org > junit > jupiter > T...

TestInstance (JUnit 5.0.1 API)

JUnit 5. Prev Class ... If `@TestInstance` is not declared on a test class or implemented test interface, the lifecycle

OVERVIEW PACKAGE CLASS USE TREE DEPRECATED INDEX HELP

PREV CLASS NEXT CLASS FRAMES NO FRAMES ALL CLASSES

SUMMARY: FIELD | REQUIRED | OPTIONAL DETAIL: FIELD | ELEMENT

org.junit.jupiter.api

Annotation Type TestInstance

```
@Target(value=TYPE)
@Retention(value=RUNTIME)
@Inherited
@Documented
@API(status=STABLE,
      since="5.0")
public @interface TestInstance
```

`@TestInstance` is a type-level annotation that is used to configure the **lifecycle** of test instances for the annotated test class or test interface.

If `@TestInstance` is not declared on a test class or implemented test interface, the lifecycle mode will implicitly default to **PER_METHOD**. Note, however, the hierarchy. In addition, the *default* lifecycle mode may be set via the `junit.jupiter.testinstance.lifecycle.default` configuration parameter which system property. Consult the User Guide for further information.

Use Cases

Setting the test instance lifecycle mode to **PER_CLASS** enables the following features.

Ex4. Improve Coding Style

- Found the bank name in the local cache.
- If not found in the local cache, checking the API response.

```
BankBO bankBO = localCacheBankMap.get(response.getBankId());  
if (bankBO == null) {  
    bankName = response.getBankName();  
} else {  
    bankName = bankBO.getBankName();  
}
```

Ex4. Improve Coding Style



```
BankBO bankBO = localCacheBankMap.get(response.getBankId());  
    if (bankBO == null) {  
        bankName = response.getBankName();  
    } else {  
        bankName = bankBO.getBankName();  
    }
```

use Optional?



Certainly! You can use Java 8's `Optional` to make the code more concise and readable. Here's how you can rewrite the provided code using `Optional`:



java

Copy code

```
BankBO bankBO = localCacheBankMap.get(response.getBankId());  
bankName = Optional.ofNullable(bankBO)  
    .map(BankBO::getBankName)  
    .orElse(response.getBankName());
```

Ex4. Improve Coding Style

- Another map for checking localCacheBankMap

```
java Copy code  
  
BankB0 bankB0 = localCacheBankMap.get(response.getBankId());  
bankName = Optional.ofNullable(bankB0)  
    .map(BankB0::getBankName)  
    .orElse(response.getBankName());
```



```
// BankB0 bankB0 = localCacheBankMap.get(response.getBankId());  
bankName = Optional.ofNullable(localCacheBankMap) Optional<Map<String, Ten  
    .map(bankMap -> localCacheBankMap.get(response.getBankId()))  
    .map(BankB0::getBankName) Optional<String>  
    .orElse(response.getBankName());
```

13

Summarize

- Converting Communication to Code
- Document Analysis for Keywords
- Quicker way to get the answer