



Web

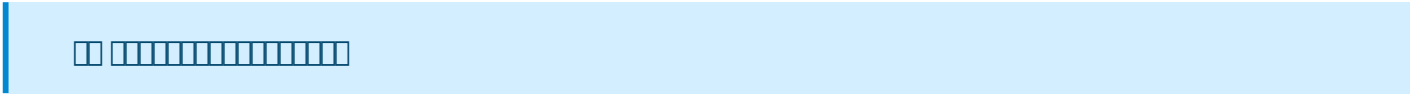
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Java

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Java final - final



final Java Code

class

class

Compile error



Override

Compile error



Compile error

final



- final abstract
- Reflection API final

JDA ❷ Discord Forum Channel Thread ❷

Code ❷

```
public class Main extends ListenerAdapter {

    public static final String TOKEN = "<BOT_TOKEN_HERE>";
    public static final String SERVER_ID = "<SERVER_ID_HERE>";
    public static final String PROJECT_FORUM_ID = "<FORUM_ID_HERE>";

    public static void main(String[] args) throws InterruptedException {
        JDA jda = JDABuilder.createDefault(Main.TOKEN).build();

        jda.addEventListener(new Main());
    }

    @Override
    public void onReady(ReadyEvent event) {
        System.out.println("Bot is ready");
        JDA jda = event.getJDA();

        Guild server = jda.getGuildById(SERVER_ID);
        assert server != null;
        ForumChannel channel = server.getForumChannelById(PROJECT_FORUM_ID);
        assert channel != null;
        System.out.printf("Channel name: %s%n", channel.getName());
        List<ThreadChannel> threadChannels = channel.getThreadChannels();

        for(ThreadChannel thread : threadChannels){
            System.out.printf("Thread: %s%n", thread.getName());
        }
    }
}
```

```

    }

    //      Bot
    //      jda.shutdown();

    }

}

```



- JDA Guild (Discord Server) Guild ForumChnnel
- `getThreadChannels()` ThreadChannel List
- List for



- **TOKEN** **Channel ID** **(Hardcode)**
- JDA (JDA.shutdown()) Gradle

Java 11 - Type Casting

Type Casting `int i = 10; i = (int) 10.5;` Casting `int i = 10; i = (int) 10.5;`

`int i = 10; i = (int) 10.5;`

```
class Animal {  
    void speak(){  
        System.out.println("Default speak");  
    }  
}
```

```
class Bird extends Animal {  
    @Override  
    void speak() {  
        System.out.println("Bird");  
    }  
}
```

```
class Dog extends Animal {  
    @Override  
    void speak() {  
        System.out.println("Dog");  
    }  
}
```

```
public class main {  
    public static void main(String[] args) {  
        Animal animal = new Animal();  
        Bird bird = new Bird();  
        Dog dog = new Dog();  
  
        animal.speak();  
        bird.speak();  
        dog.speak();  
    }  
}
```

```
// Upcasting and Downcasting
```

```
Animal animal2;
```

```
animal2 = bird; // Upcasting
```

```
animal2.speak(); // works normally
```

```
Bird bird2;
```

```
// bird2 = animal; // Down casing, compile error
```

```
// bird2 = (Bird)animal; // Compile pass
```

```
// bird2.speak(); // but throw ClassCastException error
```

```
Dog dog2;
```

```
// dog2 = bird; // Obviously not working for compiling
```

```
// dog2 = (Dog)bird; // Cannot casting to another child class, compile error.
```

```
}
```

```
}
```

- Bird 可以 casting 到 Animal 向上转型 Upcasting 编译通过
- 把 animal casting 到 Bird 向下转型 编译通过 但是运行时会抛出 ClassCastException 错误
 - 编译通过 但是运行时会抛出 ClassCastException 错误
- 把 (Bird)animal 强制转型为 Bird 编译通过 但是运行时会抛出 ClassCastException 错误
 - 编译通过 但是运行时会抛出 ClassCastException 错误
- 把 Animal 强制转型为 class 编译通过 但是运行时会抛出 ClassCastException 错误...

Spring (과 Spring Boot)

Java 과

Spring (이 Spring Boot)

이 Spring 이

1. <https://start.spring.io/>
2. Project 이 Gradle - Kotlin 이 Kotlin DSL
3. Spring Boot 이
4. Project Metadata 이
5. Packaging 이 jar
6. Java 이
7. Dependencies 이 Add Dependencies... 이 Spring Web 이
8. 이 GENERATE 이