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Simple CLI App With Spring Boot

Building simple CLI app to update database records

Suraj Mishra · [Follow](#)

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```
> update_accounts_permission start
```

Introduction

Spring boot provides Spring Shell using which we can a build CLI app. CLI app's are interactive way to build the application without needing web ui interface.

In this article we will use Spring Shell to build CLI app to bulk update **accounts** table permission.

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Dependency

Lets first add the spring-shell-starter dependency:

```
<!-- https://mvnrepository.com/artifact/org.springframework.shell/spring-shell-starter
<dependency>
  <groupId>org.springframework.shell</groupId>
  <artifactId>spring-shell-starter</artifactId>
  <version>3.2.3</version>
</dependency>
```

Use Case

We will build simple command line app for updating records in the **accounts** table.

At first lets get all the accounts by the permission id equals to 2, since that represents admin permission.

We want to change the permission from admin to reader which has id = 3

```
Permission currentPermission = permissionRepository.findById(2).get();
Permission newPermission = permissionRepository.findById(3).get();
List<Account> accounts = accountRepository.findByPermission(currentPermission);
```

Now we will log the prompt message to continue if all looks good:

```
System.out.println("Total number of records to be updated : "+accounts.size());
System.out.println("Would you like to proceed ? (y/n)");
```

For accepting users input :

```
Scanner scanner = new Scanner(System.in);  
String input = scanner.nextLine().trim();
```

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Responses (1)



Cweinert

What are your thoughts?



Balaji Rengan

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Nice article. clearly explained. Just a suggestion please post the code in github public repository and attach the link for your future articles. Thank you



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public void processPayment(String paymentMethod) {
    if ("CREDIT_CARD".equals(paymentMethod)) {
        processCreditCardPayment();
    } else if ("PAYPAL".equals(paymentMethod)) {
        processPaypalPayment();
    } else if ("BANK_TRANSFER".equals(paymentMethod)) {
        processBankTransferPayment();
    } else {
        processDefaultPayment();
    }
}

private Map<String, Runnable> paymentMethodMap = new HashMap<>();

public PaymentProcessor() {
    paymentMethodMap.put("CREDIT_CARD", this::processCreditCardPayment);
    paymentMethodMap.put("PAYPAL", this::processPaypalPayment);
    paymentMethodMap.put("BANK_TRANSFER", this::processBankTransferPayment);
}
```

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    performTask();  
    return;  
} catch (Exception e){  
    attempts++;  
    if(attempts >= MAX_ATTEMPTS){  
        throw new Exception("Max retry reached.", e);  
    }  
  
    long backOffTime = calculateBackOffWithJitter(attempts);  
    System.err.printf("Attempt %d failed. Retrying in %d ms...\n",  
    try {  
        Thread.sleep(backOffTime);  
    } catch (InterruptedException ie) {  
        Thread.currentThread().interrupt();  
        throw new RuntimeException("Thread was interrupted during r  
    }
```

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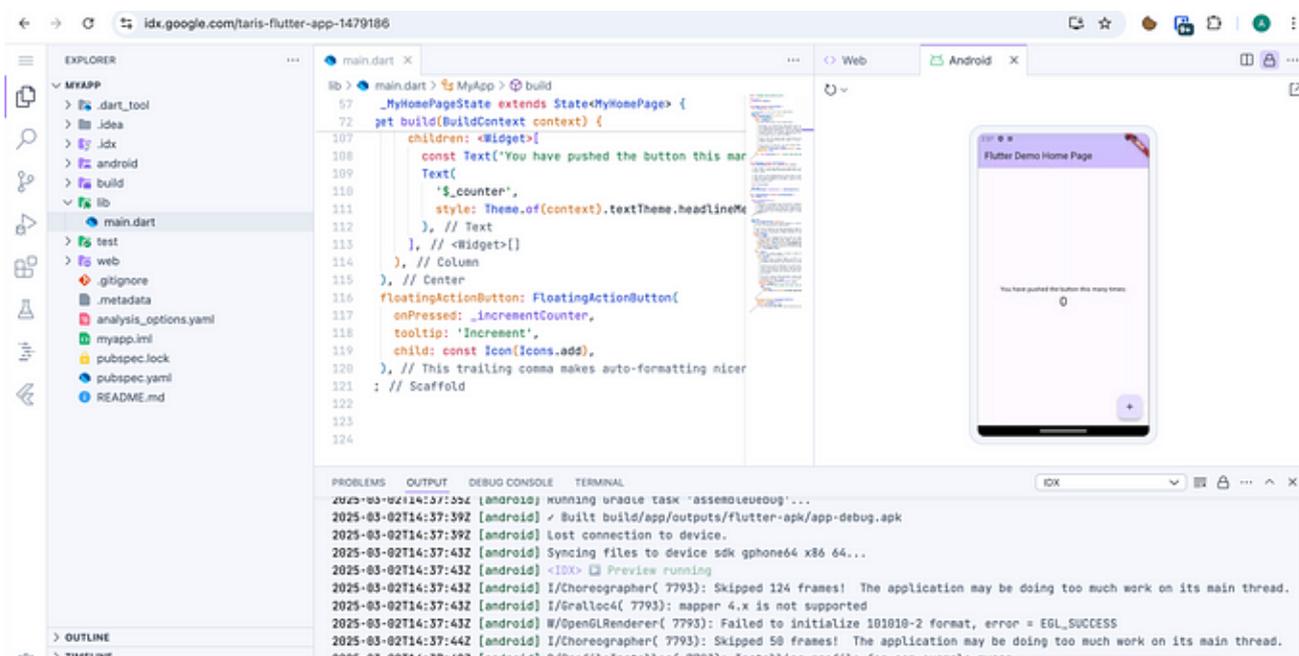
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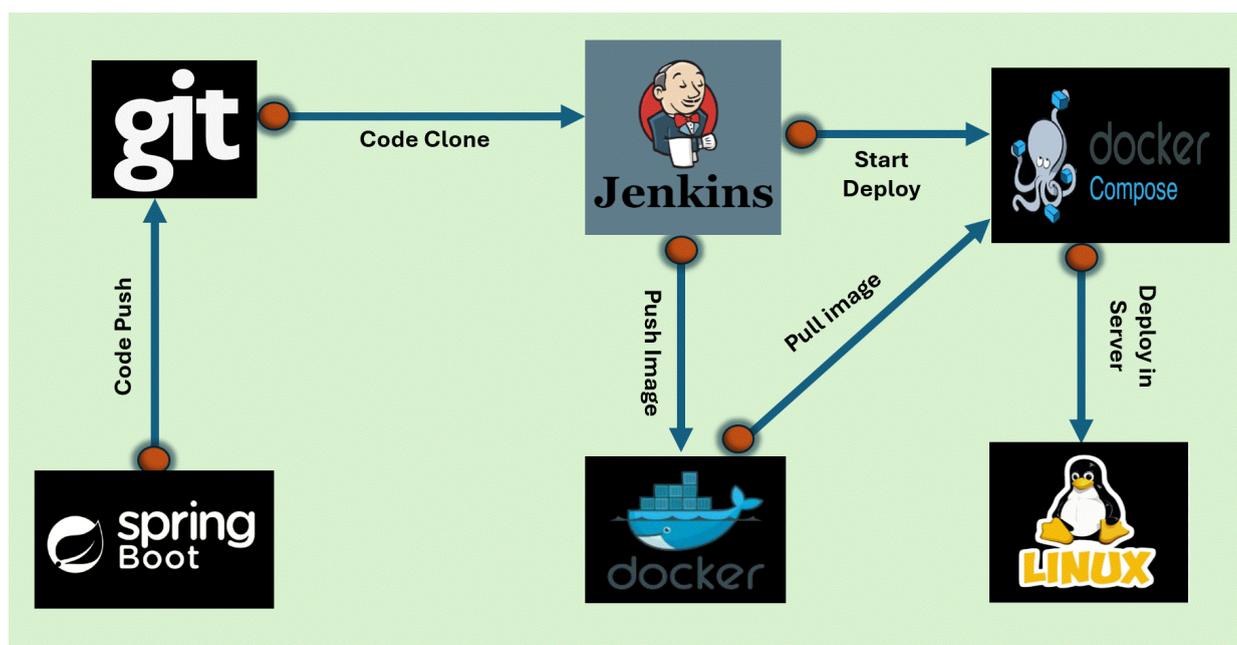


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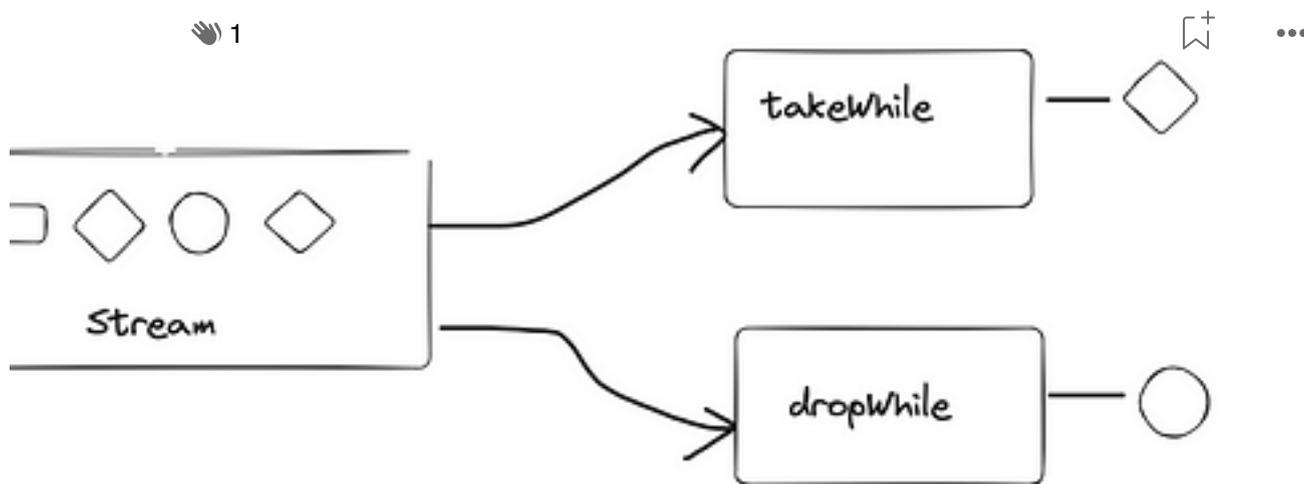
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