

Learning Substitution Variables in Programming

■ por Mayko Silva



Understanding Substitution Variables

```
DECLARE
V_NAME VARCHAR2(50);
V_AGE NUMBER;
BEGIN
V_NAME := '&name';
V_AGE := &enter_age;
DBMS_OUTPUT.PUT_LINE('Hello ' || V_NAME || ', you are ' || V_AGE || ' years old!');
END;
/
```

Think of it like this - you know when you're filling out a form and you see those blank spaces for your name and age? That's exactly what we're doing here in our program!

V_NAME Variable

First, we've got this V_NAME variable here. See this & symbol? This is super important - it's basically telling our program 'hey, stop here and ask the user for input!'

V_AGE Variable

And here's our V_AGE variable... Notice something different? We don't have quotes around 'enter_age' - that's because age is a number, not text. Little detail, but important!

Running the Program

```
Enter value for name: John
```

```
Enter value for enter_age: 40
```

```
Hello John, you are 40 years old!
```

And boom! Look at that! Pretty cool, right?

Quick tip: whenever you see that & symbol in your code, remember - that's where your program is going to pause and ask for input. It's like having a conversation with your program!



See & Symbol

1

Program pauses



Ask for Input

2

User provides information



Process Input

3

Program uses the provided data



Another Example

```
Enter value for name: Alice
```

```
Enter value for enter_age: 25
```

```
Hello Alice, you are 25 years old!
```

This is such a useful feature when you want to make your programs interactive. Instead of having fixed values, you can get information from your users in real-time!

Fixed Values

Limited to predefined data

Substitution Variables

Dynamic, user-provided information



Benefits of Substitution Variables



Interactivity

Makes programs more engaging for users



Flexibility

Allows for dynamic data input



Reusability

Same program can be used with different inputs



User-Friendly

Simulates a conversation with the program

The & Symbol: Key to Substitution Variables



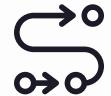
Pause Program

The & symbol tells the program to stop and wait for input



Request Input

Prompts the user to enter a value

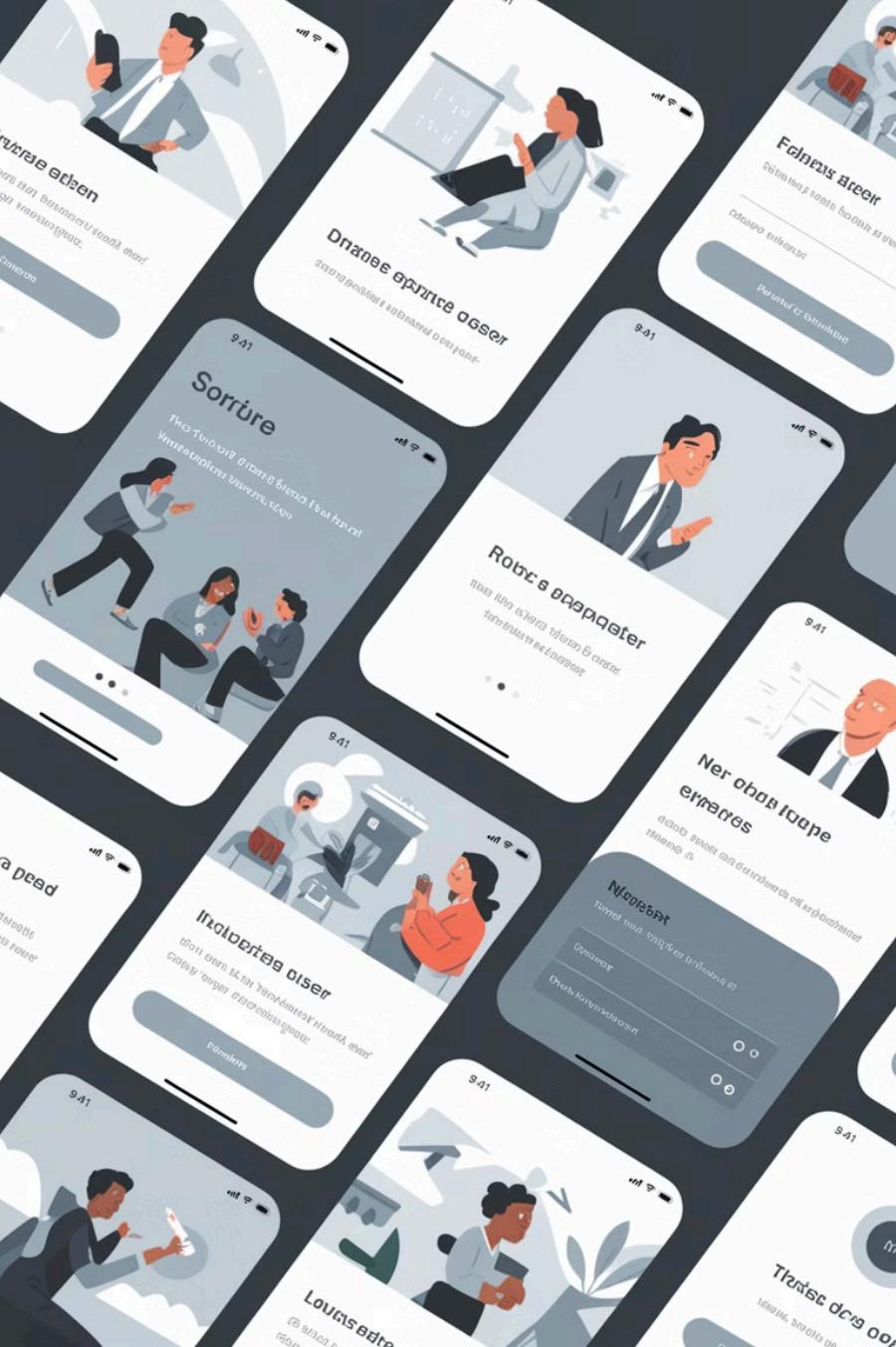


Process Data

Uses the input in the program's execution

Remember: whenever you see that & symbol in your code, that's where your program is going to pause and ask for input. It's like having a conversation with your program!





Practical Applications

- 1 User Registration
Collect user information for accounts
- 2 Customized Reports
Generate reports based on user-specified parameters
- 3 Interactive Games
Create games that respond to player input
- 4 Data Analysis
Allow users to input specific data points for analysis



Wrapping Up

Alright, that's it for substitution variables! Any questions? Drop them in the comments below. Next time, we'll look at some more advanced stuff you can do with these. See you then!

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Key Concepts

V_NAME and V_AGE variables

1

Symbol

The & for user input

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Possibilities

Endless applications in programming