



What software has changed the world in your opinion?

What apps/websites/tools can't you live without?



Computer Science

Software Engineering

The study of principles and how computers work, mostly from the theoretical and mathematical perspective

Software Engineering is a branch of Computer Science.

It applies the principle of software engineering to the design, development, maintenance, testing and evaluation of computer software

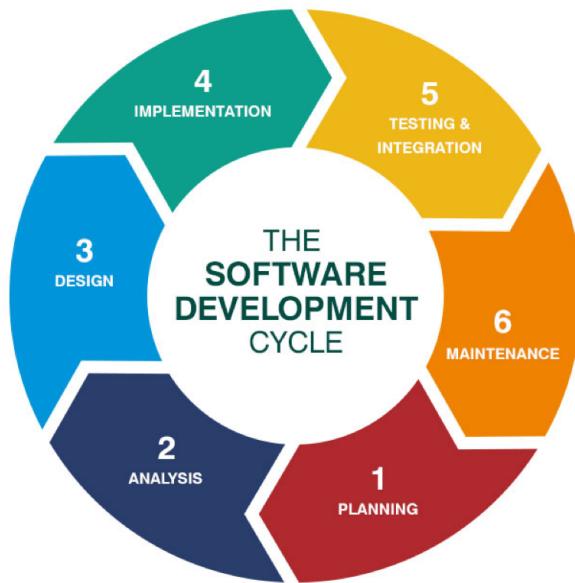
WHAT IS THE DIFFERENCE?

Software Engineer

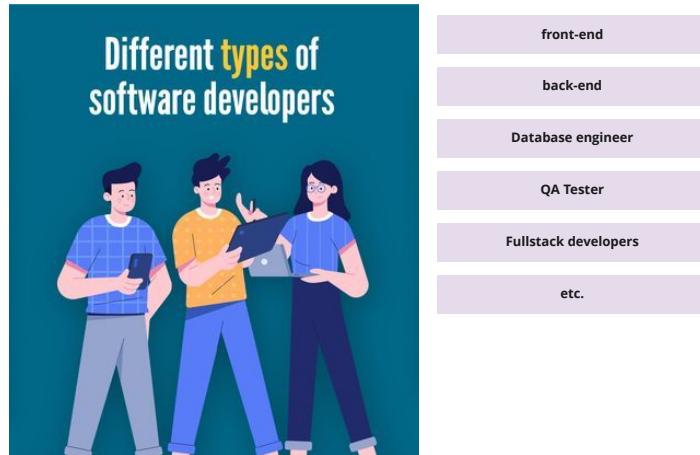
A software engineer, in addition to writing code, has a more holistic approach to software development that includes design, architecture, testing, and deployment.

Software Developer

A software developer focuses on writing code to create software applications that meet specific user requirements.



UI = user interface, UX = user experience



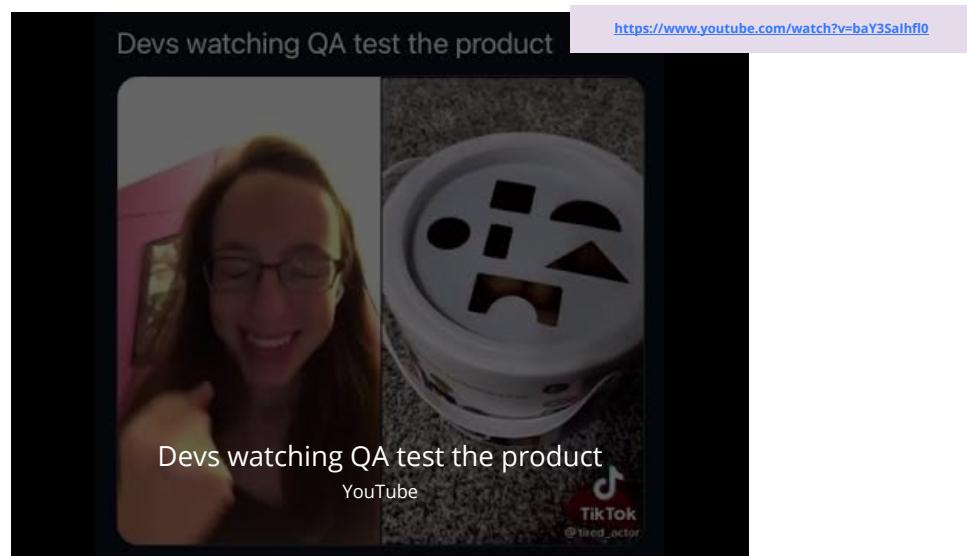
Types of Software Developers

- Front-end developers: responsible for creating the user interface and experience of a software application, using languages such as HTML, CSS, and JavaScript.
- Back-end developers: responsible for the server-side of a software application, including its logic, database, and APIs. They use languages such as Java, Python, and PHP.
- Full-stack developers: they just do both
- Mobile app developers: specialize in creating software applications for mobile devices such as smartphones and tablets, and use languages such as Swift and Kotlin.

Quality Assurance (QA) Engineers



- QA engineers are professionals responsible for ensuring the quality of software products and services.
- They use different types of testing tools and methodologies to test software, and they document the testing process and results.



QA Instructions

Title: Testing Login Functionality - QA Instructions

Description: This is a guide to help you test the login function of our web application.

Steps:

- 1 Test the login function using valid credentials and verify that you can successfully log in.
- 2 Test the login function using invalid credentials and verify that an error message is displayed, preventing login.

credentials = login + password

valid = right, correct, existing

verify = make sure, check

prevent = to stop before start

redirect = to send to a different place

encounter issues = to see problems

Expected Results:

- Successful login should redirect the user to the home page of the application and display their name.
- Entering invalid credentials should display an error message and prevent the user from logging in.

Additional Notes:

- Please test the login function using different browsers and devices.
- If you encounter any issues during testing, please report them using the bug report template.

Bug report

issue # 01:

Summary:
Login - App crashes if the user adds invalid password and taps the login button

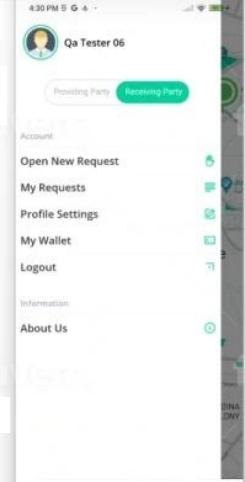
Steps To Reproduce

1. Open the app
2. Go to the "Login screen" screen
3. Enter valid email and invalid password
4. Tap on Login button
5. Try to rewrite the credentials

Expected Behavior:
App should be crashed if the user adds invalid Email or password on login screen and the validation message should appear on screen

Observed Behavior:
App crashes if the user adds invalid password and taps the login button

Video: <https://www.screencast.com/t/lJ0d04JD5dg>



summary = short description

reproduce = to produce again

Tags

Bug X

reproducibility - how often this bug reproduces

Description

ID - 254

severity - how serious your bug is

Steps to reproduce:

- 1) Reach the application.
- 2) Create a Challenge with a long name.
- 3) Create Team up in it and open Search section.
- 4) Find the Team up and observe the issue.

priority - how important it is to fix your bug, how soon you should fix it

Reproducibility - 7/10

attempts

Severity - low

bug reproduced

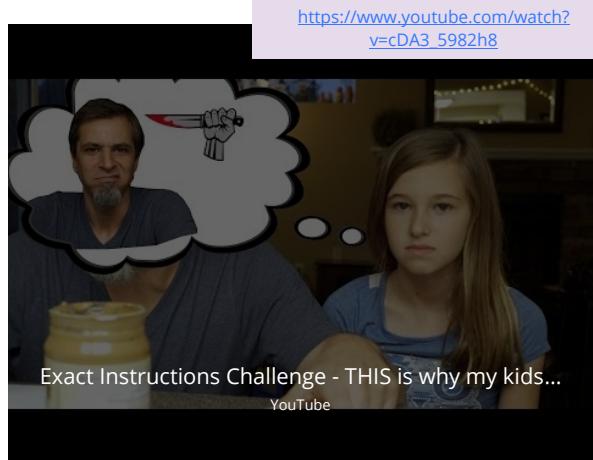
Priority - high

Tested on the testing-searchable-challenges-teamups branch.

For further information please consider the attachment.



WHOLESMOME
YUM



How to make a PB&J sandwich

1. Go to the shop and buy ingredients
2. Cut the bread
3. Open the peanut butter and jam
4. Take a knife, put it in the butter
5. Spread the peanut butter and jam on the bread
6. Put the toasts together
7. Cut the sandwich and put it on the plate
8. Enjoy!
9. Put the lid on peanut butter and jam

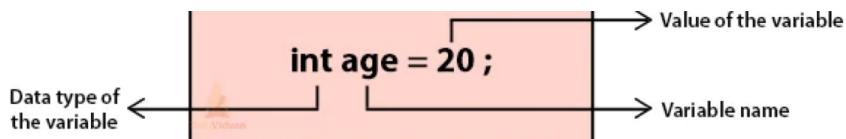
One of Skype updates included an interesting bug.
If there are five people in the meeting, one of these people laughs for more than 5 seconds, and another person starts talking when the first person is still laughing, Skype looped the sound of their laughter and played it back many times.
It was especially funny during serious meetings.

Write a bug report. Include:
 1) Summary
 2) Steps to reproduce
 3) Expected behaviour
 4) Observed behaviour
 5) Reproducibility
 6) Severity
 7) Priority

Student A

Dictate these code lines to your partner.
They should write them in Zoom chat

```
1. let sum = 3 + 4;  
2. my.list = [1, 2, 3, 4, 5];  
3. age = int(input("How old are you? "))  
4. function addNumbers(a, b) { return a + b; }
```



- A variable is a container used to store a value.
- Java variables must be declared with a data type before they can be used.
- Variables can be assigned values, and those values can be changed throughout the program.

Java Operators

- Java operators are symbols used to perform mathematical and logical operations.
- Examples of Java operators include +, -, *, /, %, &&, ||, and !



Java Symbol	Operator
==	Equal To
!=	Not Equal To
<	Less Than
<=	Less Than Or Equal To
>	Greater Than
>=	Greater Than or Equal To
&&	AND
	OR

Operators	Result
+	Addition of two numbers
-	Subtraction of two numbers
*	Multiplication of two numbers
/	Division of two numbers
%	(Modulus Operator)Divides two numbers and returns the remainder

brackets

```
print("named PLABS.ID")
x=sqrt(y)
if(a==10)
```

curly braces

```
dict =
{"nama": "Aku", "Umur": "27"}
print(dict["nama"])
```

space

square brackets

```
X= [1, 3, 5, 7, 9]
L= ["Julia", 20, 4, "Old"]
```

semicolon

colon

comma

```
X= [1, 3, 5, 7, 9]; L= ["Julia", 20, 4, "Old"]
```

double quotes

single quotes

```
print("named PLABS.ID")
print('named PLABS.ID')
```

equals

is equal to

```
a=2
b=4
print(a==b) //False
```