JONAS.IO
SCHMEDTMANN

THE COMPLETE
JAVASCRIPT COURSE

FROM ZERO TO EXPERT!

🐦 @JONASSCHMEDTMAN

SECTION

DEVELOPER SKILLS & EDITOR SETUP

LECTURE

DEBUGGING (FIXING ERRORS)

JS

WHAT IS A SOFTWARE BUG?

👉 **Software bug:** Defect or problem in a computer program. Basically, any **unexpected or unintended behavior** of a computer program is a software bug.

👉 Bugs are **completely normal** in software development!

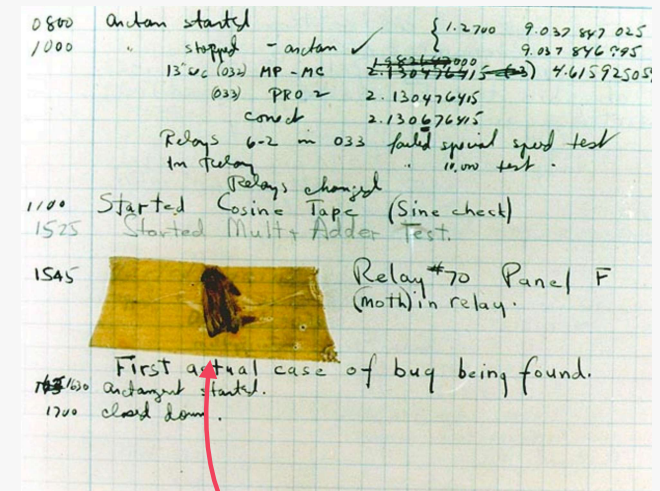👉 **Previous example:** *"We need a function that reverses whatever we pass into it"*

```
reverse([1, 3, 5, 7])
```

⬇

```
[5, 1, 7, 3]
```

Unexpected result: the array is scrambled, **NOT** reversed. So there is a **bug** in the **reverse function** 🐛

👉 **Debugging:** Process of finding, fixing and preventing bugs.

A *real bug* which was causing an error in Harvard's computer in the 1940s

THE DEBUGGING PROCESS

Becoming aware that there is a bug

Isolating where exactly the bug is happening in code

Correct the bug

Preventing it from happening again

| IDENTIFY | → | FIND | → | FIX | → | PREVENT |

IDENTIFY
- 👉 During development
- 👉 Testing software
- 👉 User reports during production
- 👉 Context: browsers, users, etc.

FIND
- 👉 Developer console (*simple* code)
- 👉 Debugger (*complex* code)

FIX
- 👉 Replace wrong solution with new correct solution

PREVENT
- 👉 Searching for the same bug in similar code
- 👉 Writing tests using testing software