Session 4

Topics discussed: storage classes, memory layout and pointers.

Data
- Notes : https://ink-shadow-404.notion.site/Programming-17bdf3acb08f4dceaa5f552ef906e655
- CS50 Memory Lecture (English) : https://youtu.be/F9-yqoS7b8w?si=ytGTy010f5w-Kocl
- CS50 Memory Lecture (Arabic): https://www.youtube.com/watch?v=myWkcypBLjU

Assignment

    Code
- Create functions to swap two values by reference and by value.
- Create a function that takes three numbers and calculate their power of two (hint: pass three numbers by reference).

    Theory
- What is the difference between swapping by value and by reference ?
- What are the types of pointers ?
- Where in memory (x, y, var1, var2)i n the following are stored ?

```
int x;
int y = 23;

int main(void)
{
    int var1 = 2;
    const int var2 = 3;
}
```

Submission

Code: Upload the code you wrote on drive with screenshots of the tested output (you can also push the code to github).

Theory: Create a document with the answer and upload it on the same drive.

Submission Link →

https://docs.google.com/forms/d/e/1FAIpQLSfRoAgKwt8uH2qOoLoH7rJ_xEUItm02fAsMmDjyEvvnNCxQQw/viewform?usp=header