LABORATORY 3 – REPORT

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Note: Coursework examiners are entitled to reject any coursework which does not have a signed copy of this form attached or are submitted late.

## Problem 1

The aim of this problem is to look at statements and to check if they are true or false

### Answers

1. True
2. False, it is just the new variable
3. False, as int cannot store a
4. False, as %d calls an int whereas name is a char
5. False, as a++ does not increment a by 1

## Problem 2

The aim of this problem is to write a C program that reads four numbers, displays the maximum value of the four numbers.

### Plan

* Print a welcoming message
* Ask the user for input
* Do the calculations
* Print the answers
* Print a goodbye message

### Development

The first step in the development of my program was to include the standard C libraries (stdio.h, stdlib.h,) that in order to be able to use certain functions in the program.

Then, I started writing up the main function of the program. I used the ‘printf’ command to display welcoming message on my screen on my screen. I used a void function to ask for the input from the user. I then used a separate void function to calculate maximum and minimum. I used a if, else if, and else statements to check for the maximum.

### Testing

I compiled and tested the program using the gcc compiler. I was not presented any errors when I compiled my code.

The program ran smoothly without any errors

### Conclusion

During this lab session I learned about some of the functions contained in the stdio.h and stdlib.h libraries (e.g. functions).

The final version of the C source code for problem 2 is attached as problem4\_1.c

## Problem 3

The aim of this problem is to write a C program that calculates the Fibonacci series of numbers, given the length of the series.

### Plan

* Print a welcoming message
* Ask the user to input a numbers
* Do the find the Fibonacci sequence
* Display the results
* Print a goodbye message

### Development

The first step in the development of my program was to include the standard C libraries (stdio.h, stdlib.h, string.h) that in order to be able to use certain functions in the program.

Then, I started writing up the main function of the program. I used the ‘printf’ command to display welcoming message on my screen on my screen. I used a void function to ask for the input from the user. I then used a separate void function to calculate the Fibonacci sequence and print out the results.

### Testing

I compiled and tested the program using the gcc compiler. I was not presented any errors when I compiled my code.

### Conclusion

During this lab session I learned about some of the functions contained in the stdio.h, stdlib.h and string.h libraries (e.g. if statements)..

The final version of the C source code for problem 3 is attached as problem4\_2.c

## Problem 3

The aim of this problem is to write a C program that calculates the commission for a sales department and prints the commission.

### Plan

* Print a welcoming message
* Ask the user for input
* Do the calculations
* Print the answers
* Print a goodbye message

### Development

The first step in the development of my program was to include the standard C libraries (stdio.h, stdlib.h, string.h) that in order to be able to use certain functions in the program.

Then, I started writing up the main function of the program. I used the ‘printf’ command to display welcoming message on my screen on my screen. I used a void function to ask for the input from the user. I then used a separate void function to calculate the commission under €10000, then between €10000 and €20000, then above €20000. I then found the sum of all the commission. I then used a printf statement to print out the total commission.

### Testing

I compiled and tested the program using the gcc compiler. I was not presented any errors when I compiled my code.

### Conclusion

During this lab session I learned about some of the functions contained in the stdio.h, stdlib.h and string.h libraries (e.g. for loops)..

The final version of the C source code for problem 4 is attached as problem4\_3.c