

BSc (Hons) in Information Technology

Year 1

Tutorial Week 1

IT1050 – Object Oriented Concepts

Semester 1, 2020




Objectives : Use the online programming Repl.IT that is used for tutorials and to refresh the programming knowledge you have learnt in IT1010 – Introduction to Programming Environments

Exercise 0

Follow the Instructions given in the document Instructions in using Repl.IT to setup an account and start the first Tutorial.

Once you have completed the steps you should see the following screen. You can tryout the 4 questions of the Tutorial. The questions are called Assignments in Repl.IT

∨ Assignments

Assignment Name	Date Due	Last Activity	All Submissions ▾	Export
Week 01a - Calculat...	—	3 days ago	Completed	
Week 01b - Selection	—	3 days ago	Draft	
Week 01c - Repeatit...	—	3 days ago	No progress	
Week 01d - Functions	—	29 minutes ago	Draft	

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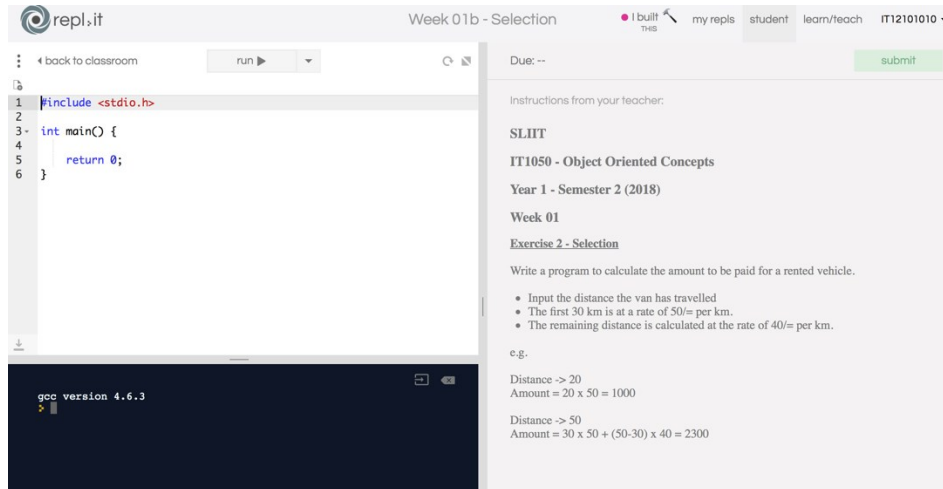
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Use the Editor to try out the program and you can run your program using the run button. Once you are satisfied with your solution you can submit your solution.



repl.it Week 01b - Selection

Instructions from your teacher:

SLIIT

IT1050 - Object Oriented Concepts

Year 1 - Semester 2 (2018)

Week 01

Exercise 2 - Selection

Write a program to calculate the amount to be paid for a rented vehicle.

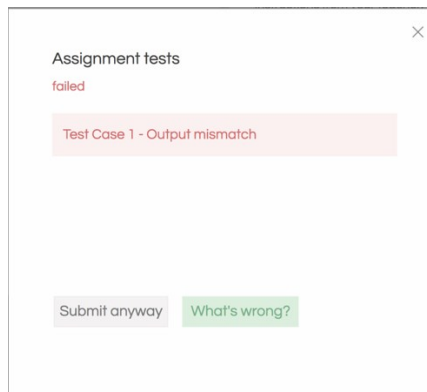
- Input the distance the van has travelled
- The first 30 km is at a rate of 50/= per km.
- The remaining distance is calculated at the rate of 40/= per km.

e.g.

Distance -> 20
Amount = 20 x 50 = 1000

Distance -> 50
Amount = 30 x 50 + (50-30) x 40 = 2300

Your solution will be checked for logical errors and you will be notified if there are errors. In such a case modify your program and resubmit.



Assignment tests

failed

Test Case 1 - Output mismatch

Submit anyway What's wrong?

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A successful submission will be shown as below.

×

Assignment tests

passed all tests

Test Case 1

Test Case 2

Test Case 3

Submit

You should press the Submit Button given to complete the submission.

The questions in the Week 01 Tutorial are given below in case you have issues in accessing the Internet.

Exercise 1 - Calculations

Write a C program to input marks of two subjects. Calculate and print the average of the two marks.

Exercise 2 - Selection

Write a program to calculate the amount to be paid for a rented vehicle.

- Input the distance the van has travelled
- The first 30 km is at a rate of 50/= per km.
- The remaining distance is calculated at the rate of 40/= per km.

e.g.

Distance -> 20

Amount = $20 \times 50 = 1000$

Distance -> 50

Amount = $30 \times 50 + (50-30) \times 40 = 2300$

Exercise 3 - Repetition

Write a C program to calculate the sum of the numbers from 1 to n.
Where n is a keyboard input.

e.g.

n -> 100

sum = $1+2+3+...+99+100 = 5050$

n -> 10

sum = $1+2+3+...+10 = 55$

Exercise 4 - Functions

Implement the three functions `minimum()`, `maximum()` and `multiply()` below the `main()` function.

Do not change the code given in the `main()` function when you are implementing your solution.

```
int main() {
    int no1, no2;
    printf("Enter a value for no 1 : ");
    scanf("%d", &no1);
    printf("Enter a value for no 2 : ");
    scanf("%d", &no2);
    printf("%d ", minimum(no1, no2));
    printf("%d ", maximum(no1, no2));
    printf("%d ", multiply(no1, no2));
    return 0;
}
```