

## Laboratory Session

### Practical Exercises – 100% Online (No Installation Required)

Dear students,

**Today you will work entirely through your browser.**

We will use the best free online C compiler currently available:

👉 [https://www.onlinegdb.com/online\\_c\\_compiler](https://www.onlinegdb.com/online_c_compiler)

**Alternative (very good as well):**

[https://www.w3schools.com/c/tryit.php?filename=demo\\_helloworld](https://www.w3schools.com/c/tryit.php?filename=demo_helloworld)

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## Lab Exercises

Complete them **one by one** in OnlineGDB.

(When you finish an exercise, click **Save**, then copy the link or download the .c file and submit it.)

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### 1. Warm-up

Write and run the classic “Hello World” program exactly as shown in the lecture.

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### 2. Personal Introduction

Make your program print:

\*\*\* Student Information \*\*\*

Name: Your Full Name

ID: 2025XXXXXX

Course: Introduction to C

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### 3. Two-line Welcome (with tabs)

Your program must output exactly:

Language: C

Year: 2025-2026

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#### 4. Age Calculator

Ask the user: “**What year were you born?**”

Then print: “**In 2025 you are/will be X years old.**”

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#### 5. Simple Calculator

Ask the user for two integers a and b, then print:

a + b = ?

a - b = ?

a \* b = ?

a / b = ? (integer division)

a % b = ? (remainder)

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#### 6. Temperature Converter

Convert in both directions:

- Ask for temperature in Celsius → print Fahrenheit
- Then ask for Fahrenheit → print Celsius

Use the formulas:

$$F = C \times 1.8 + 32$$

$$C = (F - 32) \times 0.5556 \text{ (or } 5.0/9.0\text{)}$$

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#### 7. BMI Calculator (Full Version)

Ask the user for weight (kg) and height (m), compute BMI, then print the value (1 decimal) and category:

BMI < 18.5 → Underweight

18.5 ≤ BMI < 25 → Normal weight

25 ≤ BMI < 30 → Overweight

BMI ≥ 30 → Obese

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### 8. Bonus – Exact Box (Type it yourself!)

Print the following shape using only printf and escape sequences:

```
+-----+  
|       |  
| Welcome to C |  
|       |  
+-----+
```