

Lab 3: Part 2. Intelligent Homework Service.

Due date: Wednesday, January 26, 11:59am.

Lab Assignment

Lab 3 is devoted to the study of conditional statements in C. The lab consists of three parts, each with its own deadline and participation rules:

Part	Assignment	Starts	Due	Participation
Part 1	Simple programs	January 19 (Wednesday)	January 21 (Friday)	<i>Pair programming</i>
Part 2	IHS if-statement zones	January 21 (Friday)	January 26 (Wednesday)	<i>Individual</i>
Part 3	Lab 2 rewrites	January 24 (Monday)	January 28 (Friday)	<i>Pair programming</i>

Assignment Preparation

READ THE INSTRUCTIONS FIRST. Please read this document completely **before** you start your work. This document explains to you how to use IHS, the Intelligent Homework Service system, which will provide you with a multitude of assignments for this lab, some future labs, and for the lab tests in this course.

Lab type. Part 2 of the lab is an **individual assignment**.

Collaboration. No collaboration is allowed.

Purpose. The lab allows you to practice the use of conditional statements. It also facilitates learning the use of boolean expressions as conditions in **if** and **switch** statements.

Programming Style. Unlike most other lab assignments, your use of the IHS system is NOT subject to programming style rules. Your submissions are automatically graded based on their correctness, and the grading program does not check for style. More importantly, since you will be writing only **fragments**, no complete C programs, there is no need to enforce style rules.

The Task

This part of the lab prepares you for the Lab Test 1, which will use the same assignments (some of them). Similarly to Lab 2-2, you will use IHS, an on-line system for delivery of programming exercises.

IHS, the Intelligent Homework Service

The Intelligent Homework Service (IHS) is located at the following URL:

<http://ihs.dynalias.com/IHS>

There is a student help web page located at

<http://ihs.dynalias.com/IHS/Docs/StudentManual.html>

Both pages are linked to from the course web page.

A web page describing the If-statement zones, the category of problems you will be working on in this lab, is available at

http://users.csc.calpoly.edu/~grade_cstaley/cpe101/CBasics/IfGridExpl.html

There is a link to this page on the Lab 3 resources page.

Work on Assignment

IHS Login. Complete the IHS login procedure, same as you did for Lab 2-2.

Lab location. Workbook Zoom Zoom Zoom will contain a second assignment, Lab 3-2 on it. When this assignment shows "Open" status and the "Work on this assignment" link next to it, Lab 3-2 is officially open for work.

Follow the "Work on this assignment" link one it opens.

Assignment Parts. You will see the page detailing the If-Grids assignment. When you access this page first, the following information will be displayed:

#	Problem description	Pts	Next Try allowed	Attempts
1	If-Statement Zones: Warm-up	10	Any time	0
2	If-Statement Zones: Level 1	10	Any time	0
3	If-Statement Zones: Level 2	10	Any time	0
4	If-Statement Zones: Level 3	10	Any time	0
5	If-Statement Zones: Level 4	10	Any time	0
6	If-Statement Zones: Level 5	10	Any time	0
7	If-Statement Zones: Level 6	10	Any time	0
8	If-Statement Zones: Level 7	10	Any time	0
9	If-Statement Zones: Level 8	10	Any time	0
10	If-Statement Zones: Level 9	10	Any time	0
11	If-Statement Zones: Level 10	10	Any time	0
12	If-Statement Zones: Level 11	10	Any time	0
13	If-Statement Zones: Level 12	10	Any time	0

There will also be a "Work on current attempt" link next to each part of the assignment.

If Statement Grids

Read the description of the If Statement Grids assignment located at

http://users.csc.calpoly.edu/~grade_cstaley/cpe101/CBasics/IfGridExpl.html

and make sure you understand the example.

Please note the following:

- When you are working on a specific problem, you are expected to write **only the if statements**. There is no need to declare variables, and do other things.
- When you are working on a specific problem, the assignment instructions will contain the names and the types of all variables that you need to use in your code fragments. You are not expected to declare/use any other variables.

Problem Tiers

The If Statement Grids assignment has 13 problem tiers, listed on the assignment page. To complete each tier, you will need to correctly solve two problems. Each tier contains problems of a specific level of difficulty. The "Warmup" tier (tier 1) contains the simple if-statement grids, and each following tier adds a wrinkle or two (more colors, more complex patterns, overlap, non-rectangular shapes) to the patterns that you are given.

You only need to solve problems in a tier once. However, you may always revisit the tiers that you have completed for an extra dose of practice.

Please note, that all problems you receive on all tiers are randomly generated and no two problems are the same.

To complete this assignment you must complete the following tiers:

1. If-Statement Zones: Warm-up
2. If-Statement Zones: Level 1
3. If-Statement Zones: Level 2
4. If-Statement Zones: Level 3
5. If-Statement Zones: Level 4
6. If-Statement Zones: Level 5
7. If-Statement Zones: Level 6

Grading

You **must** complete the first six tiers, otherwise you fail this assignment.

Complete the six first tiers of the assignment for 80% of the credit.

Complete additionally Level 6 (the seventh tier) for 100% of the credit.

Complete additional levels (7 -12) for 10% extra credit per level. You will also receive a bonus 10% if you successfully complete **all problem tiers** in this assignment.

To receive proper credit for your work, your assignments must be completed by midnight, Wednesday, January 26.