Anish Laddha, Period 1

Chapter 1

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#R1.1, R1.2, R1.3, R1.4, R1.5, R1.6, R1.7, R1.10, R1.11, R1.12, R1.13, R1.14

R1.1:

A computer program is a sequence of instructions and decisions, while programming

is the act of designing and implementing the aforementioned programs.

R1.2

Programs and user data are usually stored on hard drives/ssds, and programs are loaded

into computer memory when programs are running.

R1.3

Output devices such as screens and speakers provide the user with information, while the user can input information using a touch screen, keyboard, or mouse.

R 1.4

My phone is a programmable computer because it can do numerous functions, from using different apps to doing many mathematical operations.

R 1.5

Machine code is numeric and it is error prone. C++, however, is more readable by humans and more accurately follows the pseudo code. Additionally, machine code is programmed differently for each chipset, but c++ can be used across multiple ,achines.

R 1.6

1. /users/anishladdha/introC/ch1/hello.cpp

2. ~/opt/anaconda3/pkgs/libcxx/include/c++/v1/iostream

R 1.7

6 \* 7 = 42

R1.10

hello.cpp program:

#include <iostream>

using namespace std;

int main()

{

cout << “Hello World” << endl;

return 0;

}

Compile error 1:

In line 5, you put coutt instead of cout

Compile error 2:

you do cout >> instead of cout <<

Compiler error 3:

You do reurn instead of return in line 6

Runtime error: you do cout << “Hello Wrld” << endl; instead of cout << “Hello World” << endl;

R 1.11:

You discover compile time errors when you try to compile your program, and before you even try to run it. You discover runtime errors when running a program and it does something you didnt want it to do.

R 1.12:

Balance = 1000

Months = 0

While balance is bigger than 0:

Interest = balance \*0.005

Balance = balance + interest - 500

Month ++

Years = months / 12

Return years

R 1.13:

The 0.5% each month will be > $1 so the money will never run out, and the program would go on infinitely

Month = 0

While balance >= withdrawn:

Balance = balance + (balance\*percent\_per\_month)

Balance = ba;ance-withdrawn

Month ++

Print month

R 1.14:

side\_walls = width \* height \* 2

Long\_walls = length \* height \* 2

window\_door\_area = wind\_height\*wind\_width

total\_window\_door = window\_door\_area \* number\_of\_wd

Exterior\_paint\_area = side\_walls + long\_walls - total\_window\_door