

Please fill out the survey so I can tell how fast to go over the content! (link in the emails)

Week 2!

CLASS TERM



Overview

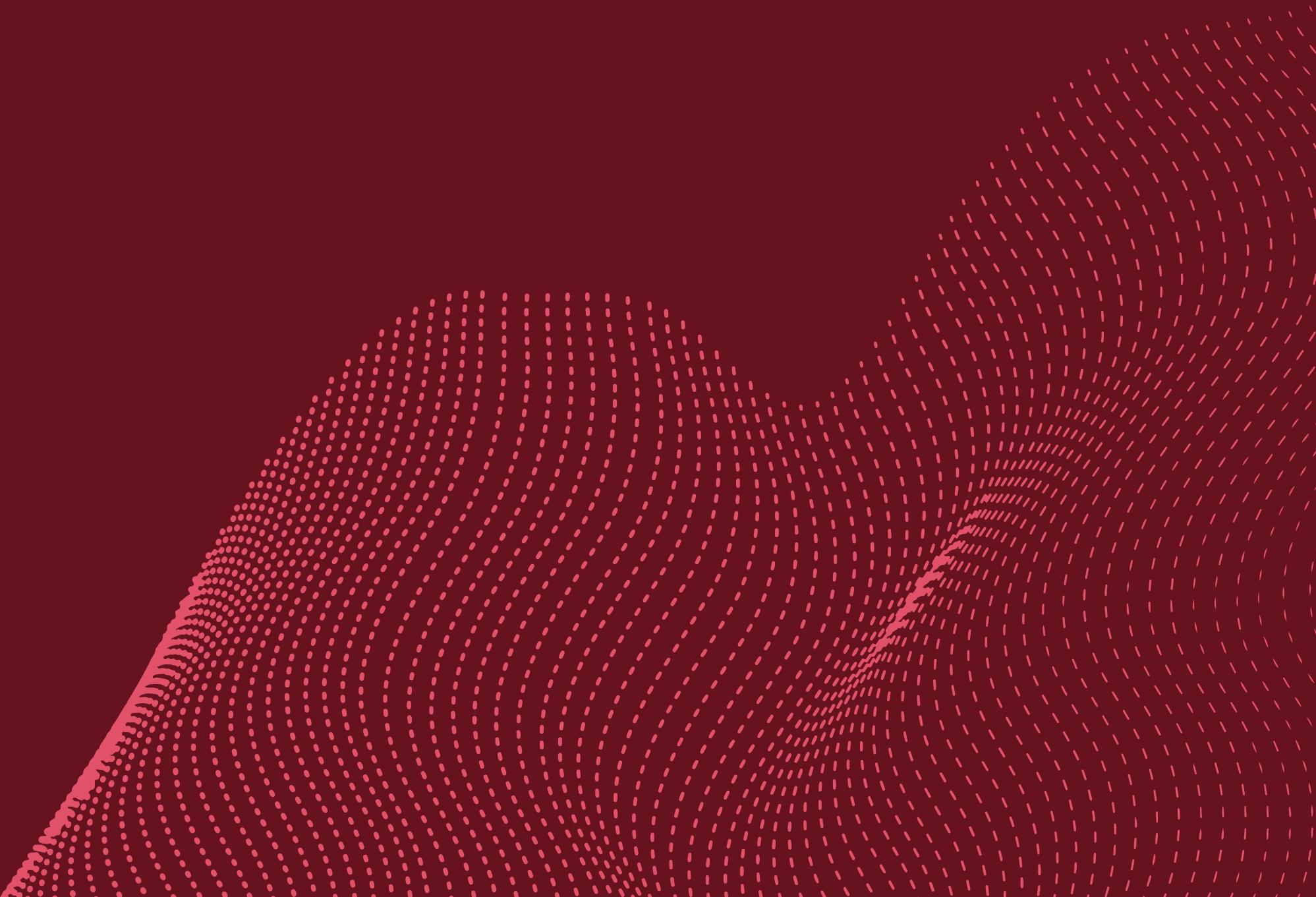
Variables

Constants

Calculating Values in Programs

Diagramming

Practical Programming Exercise



Variables

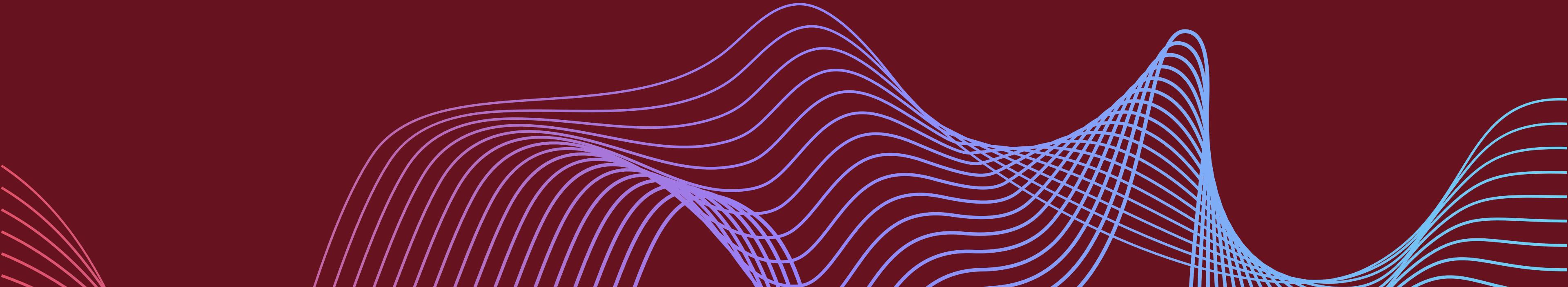
What data types have we seen so far? int char double

How do we declare a variable? data_type variable_name;

How do we initialise variables? variable_name = value;

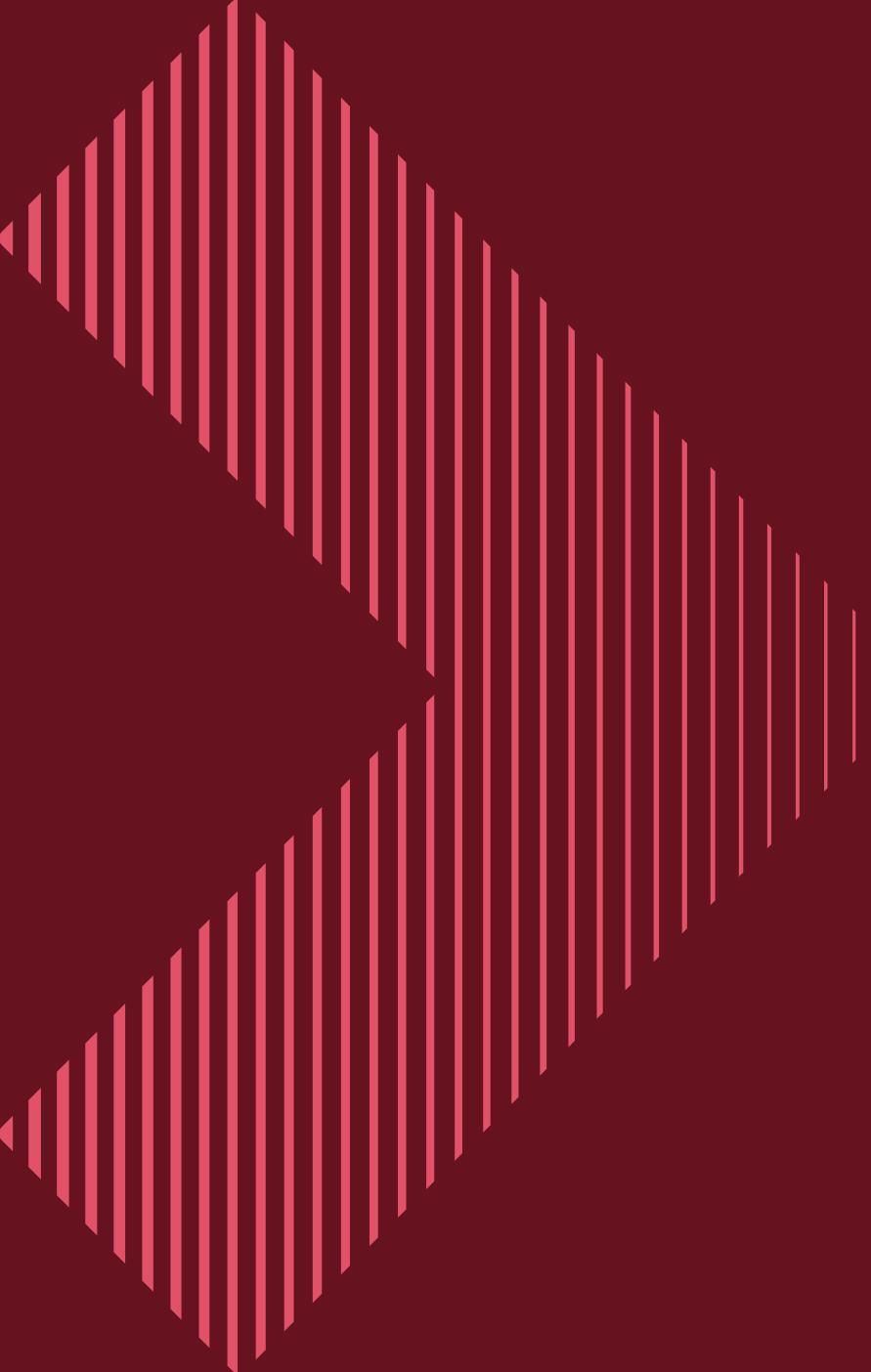
How do we print the value of variables? using printf(...); from <stdio.h>

see tut code for a full solution



Constants

See tut code for
a full solution!



Calculating Values in Problems

In your groups: Write down as many operators of your allocated type as you can

Group 1: Arithmetic

Group 2: Logic

Group 3: Comparison

Operators

Arithmetic

+ - * / %

Logic

&& || !

Comparison

< > <= >= != ==

Operators

Arithmetic + - * / % ++ -- += -= *= /= %=

Logic && || !

Comparison < > <= >= != ==

Operators

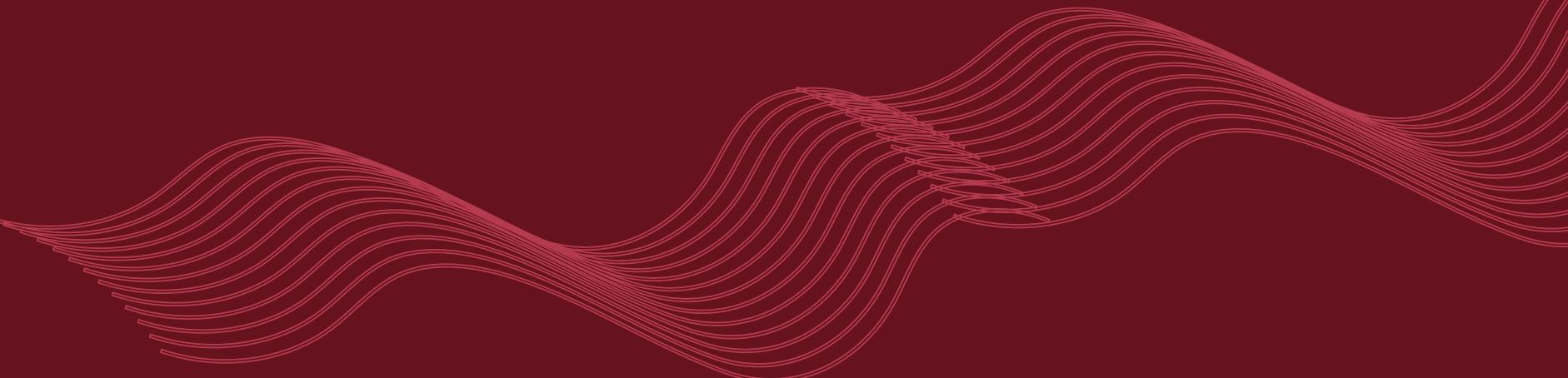
Arithmetic + - * / % ++ -- += -= *= /= %=

Logic && || !

Comparison < > <= >= != ==

Bitwise & | ^ << >> ~

Ternary
expressions cond ? if_true : if_false



Weird Data Types and Arithmetic

**What types of storage have
we seen so far?**

double

int

char

Reminder

integer / integer == integer

char + integer == char

Exercise

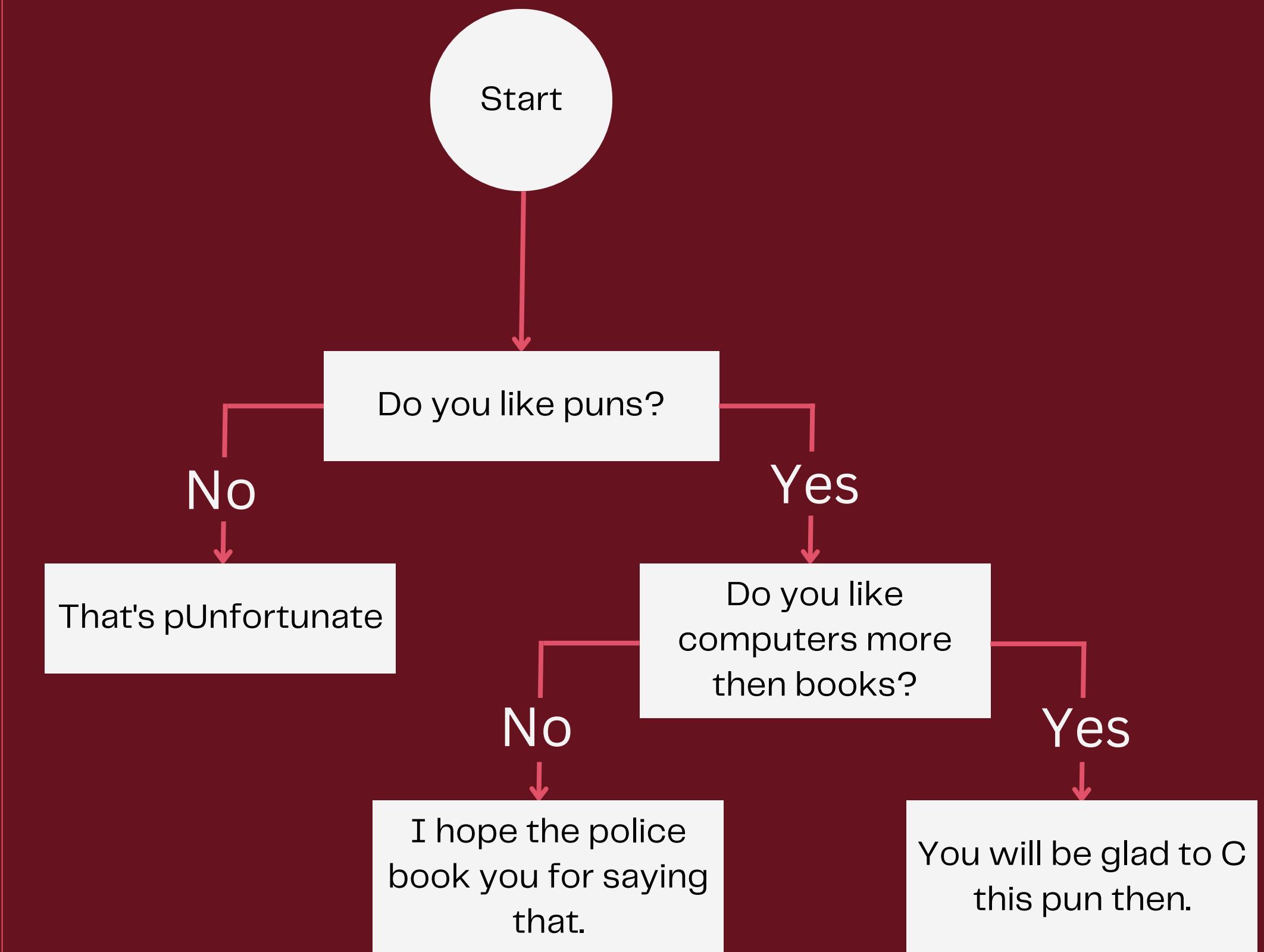
Group 1: $(7 / 2)$

Group 2: $(3.0 / 2) + 1$

Group 3: $'a' + 5$

Group 4: $'F' - 'A' + 'a'$

Diagramming!

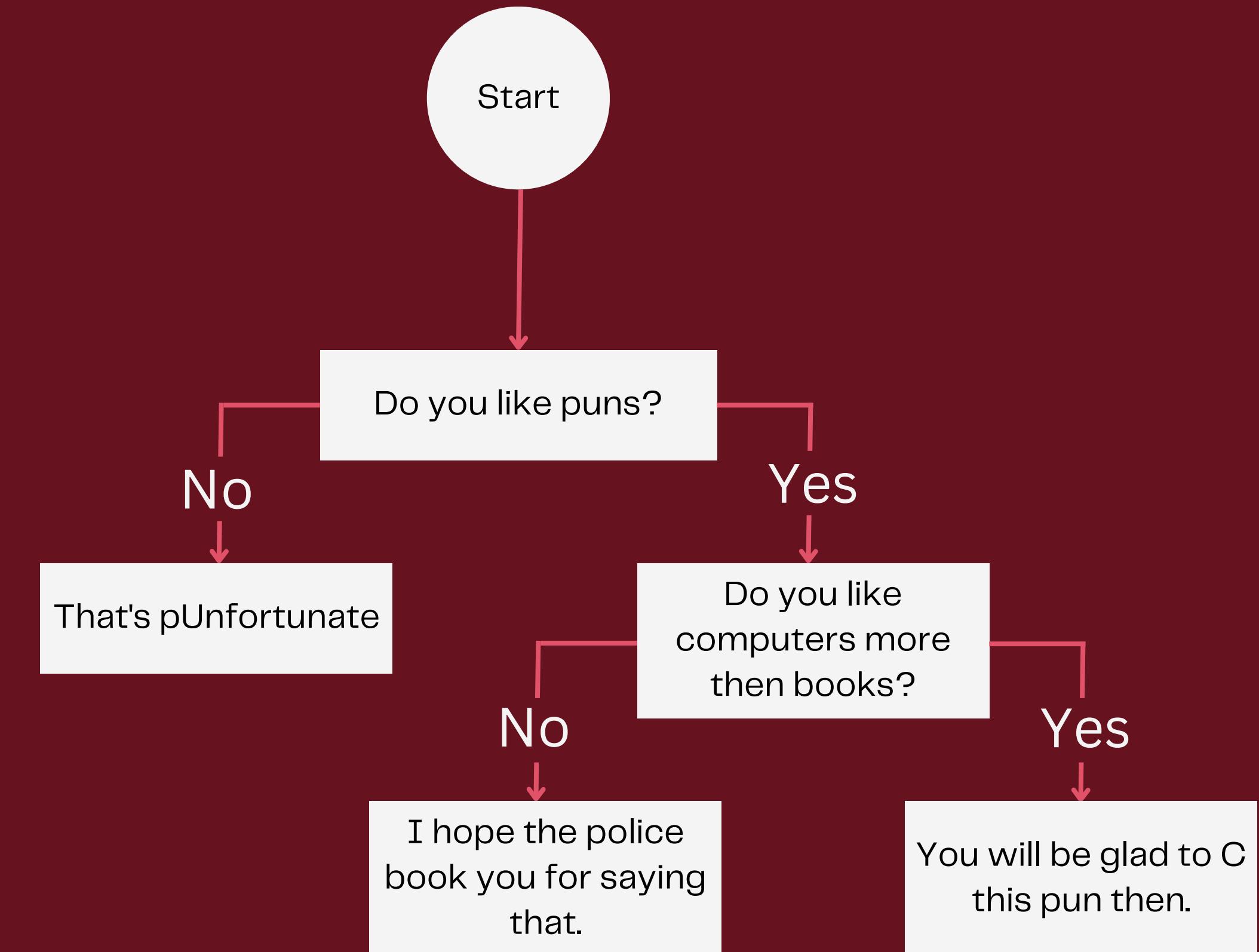


Parts of the flow chart

Circle - Start of the diagram

Boxes - Question/decision

Arrows - Answer to the previous question, directs you to the next question or result



Practical Programming Exercise

The program should:

1. Scan in the users height.
2. If the height is 0 or less, it should print an error message,
3. If the height is below the minimum height, it should print a message telling the user they are not tall enough to ride,
4. If the hight is above the minimum but below the ride alone threshold, it should print a message telling the user they can ride with an adult,
5. If the height is or is above the ride alone threshold, it should print a message telling the user they can ride.

Questions

The background features a dark red gradient. On the left side, there is a large, abstract graphic element consisting of numerous thin, light red lines that curve and overlap, creating a wavy, organic shape. A similar smaller wavy pattern is located in the bottom right corner.

Lab Time