Algorithms and Data Structures

Lecture 1

September 11, 2019

Labs

Fridays from 12 to 2

Definitions

An **Algorithm** is a set of instructions which state how a task is to be performed

A **Data Structure** is a framework we use to represent data.

An **Abstract Data Structure** is a way of managing and organising Data Structures

Making an algorithm

Ask these questions:

- Does it do what its supposed to?

- How long will it take?

- How much memory will it need to run?

- How are we going to implement it? *Shocker: python3*

Programs must be:

1. Your program must be correct *Not just bug free but does it exactly right*

2. Your program must be effient

3. Must be able to be human readable

4. Do not subvert the design pattern

- Understand wyas to interact with data
- Dont interact with data you're not supposed to