Testing, lecture recap💛

Testing - identifying errors in a program
Debuging - removing them

Errors :
Compile type error and runtime error

Compile time doesn't even execute:usually from a syntax error(misspelt something etc)

Run time error:program starts but then gives up(runs but doesn't gives you good results, program not doing what's required—logic error)
Logic errors and runtime error are similar(not the same)
Program crashed=runtime error

Exhaustive testing
Random Testing - generate random numbers within acceptable range and test out
Path Testing - because of the structure of loops they are diff ways a program can execute (a lot of paths)
All combinations - path testing
Statement Coverage - make sure every single block of code gets executed across all sets of inputs)
Statement coverage is much easier in terms of testing

Best one is exhaustive testing if you can use it.if infinite number, you cant

Equivalence classes:Determine how you break up your inputs depending how the output is
Does same sort of thing (one class)

Boundary value : we expect errors where the transition happens
One below, one on and one above

Whenever you see multiple inputs don't add up individual groups of classes, multiply them

A while loop can ask create different paths, its not just if statements