



Objects as a programming concept

IB Computer Science



*Content developed by
Dartford Grammar School
Computer Science Department*



HL Topics 1-7, D1-4



1: System design



2: Computer Organisation



3: Networks



4: Computational thinking



5: Abstract data structures



6: Resource management



7: Control



D: OOP

HL & SL D.3 Overview

D.3 Program development

D.3.1 Define the terms: class, identifier, primitive, instance variable, parameter variable, local variable

D.3.2 Define the terms: method, accessor, mutator, constructor, signature, return value

D.3.3 Define the terms: private, protected, public, extends, static

D.3.4 Describe the uses of the primitive data types and the reference class string

D.3.5 Construct code to implement assessment statements

D.3.6 Construct code examples related to selection statements

D.3.7 Construct code examples related to repetition statements

D.3.8 Construct code examples related to static arrays

D.3.9 Discuss the features of modern programming languages that enable internationalization

D.3.10 Discuss the ethical and moral obligations of programmers



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5: Abstract data structures

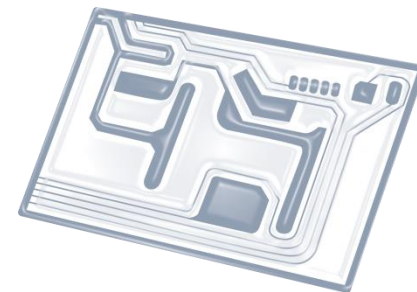
6: Resource management



7: Control

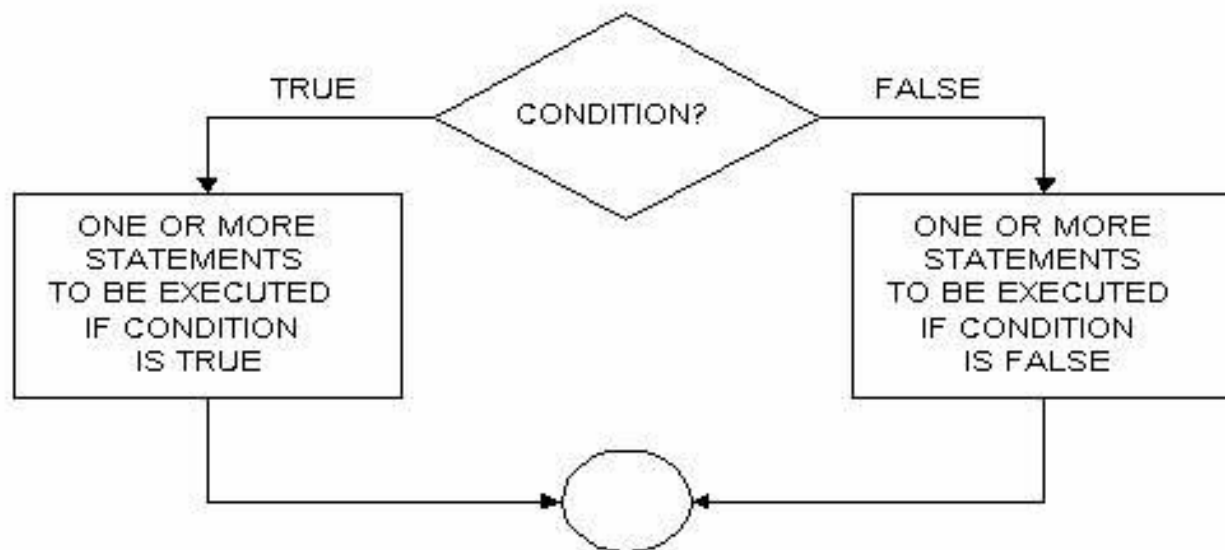
D: OOP





Topic D.3.6

Construct code examples related to **selection** statements



Practice code that uses:

- IF / ELSE
- Boolean conditions, e.g. **WHILE** `list.hasNext()`

```
int num = 5;

if (num < 3) {
    System.out.println("Under 3");
}
else if (num == 3) {
    System.out.println("Equals 3");
}
else {
    System.out.println("Over 3");
}
```

Three steps to exam-prep

- Make **flashcards** of all key concepts
- **Practice programming** all concepts on the **computer** using an IDE (like Eclipse)
- **Practice programming on paper** (*very important!*)

Warning: Don't depend too much on past papers. Questions change every year and no scenario will ever repeat.

