

Strand C: Development

IB Computer Science

Internal Assessment



Marks

Marks	Description
0	The response does not reach a standard described by the descriptors below.
1–4	The use of techniques demonstrates a low level of complexity and ingenuity or does not address the scenario identified in criterion A. It is characterized by limited use of existing tools. There is no explanation of why the techniques are used or how they are adequate for the task. Sources are used but are not identified.
5–8	The use of techniques demonstrates a moderate level of complexity and ingenuity in addressing the scenario identified in criterion A. It is characterized by some appropriate use of existing tools. There is some attempt to explain the techniques used and why they are adequate for the task. All sources are identified.
9–12	The use of techniques demonstrates a high level of complexity and ingenuity in addressing the scenario identified in criterion A. It is characterized by the appropriate use of existing tools. The techniques are adequate for the task and their use is explained. All sources are identified.

Brief

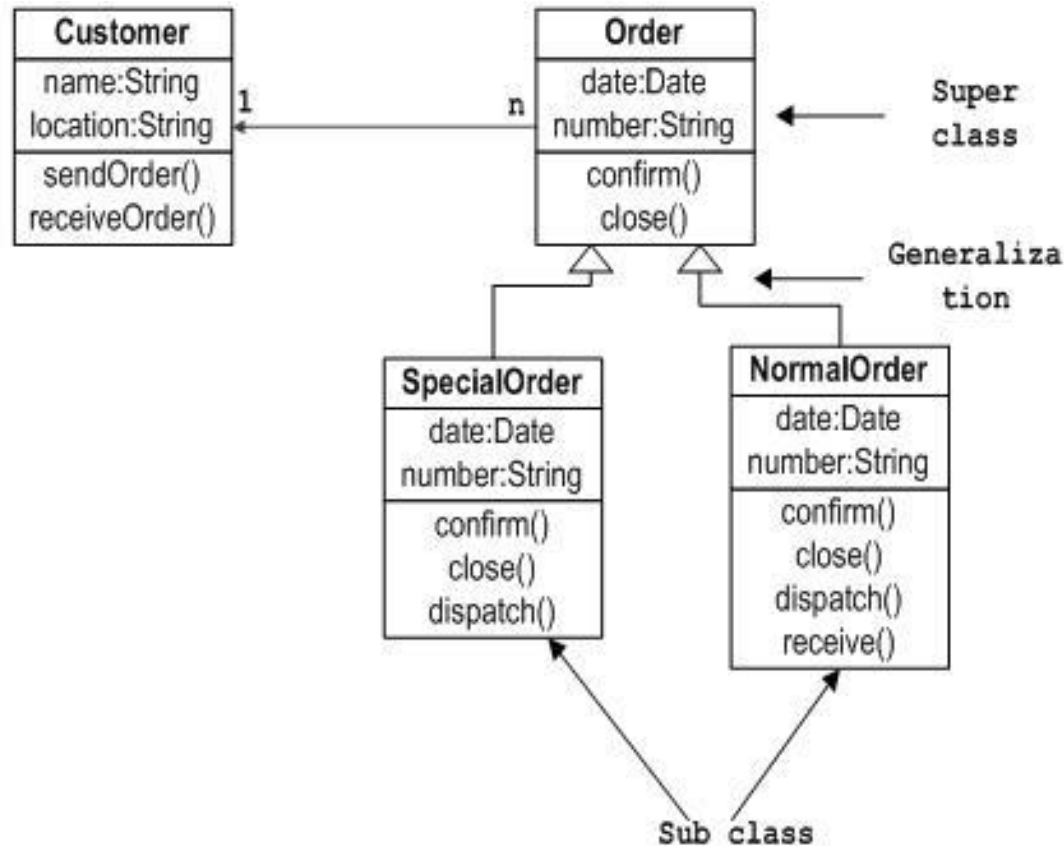
What does C include?

- One written document:
 - UML diagram of your program.
 - Screenshots your “complex” code and a brief explanation why it is suitable to perform the task it does.
 - Identification of any sources used.

Word count: ~1000

UML

You have to use OOP (objects!) and ADT (linked lists, queues, 2D array) to get anything more than 3 marks



Complex code

- Keep it brief... It does not need the life story behind your project.

Layout of program

(page 2)

Techniques used:

- A. Local Variables
- B. Parameter passing
- C. Calling methods from other
- D. Do While loop
- E. Switch case
- F. Arrays
- G. Catching exceptions

(page 3)

F. Arrays

```
5 private final int MAX_RESIDENTS = 25;  
6 private Resident[] residentEntries = new Resident[MAX_RESIDENTS]; //array for residents
```

Line 6 from the *Resident* class shows the declaration of the array of residents called *residentEntries* with 25 spaces (the maximum number of residents – *MAX_RESIDENTS*). The array is used to store the residents in and is useful because each position in the array can hold all the details of each resident.

Refer to the screenshot in part A. (page 1) for an example of the use of arrays in the program.

What is complex?

- Pick **6-8 examples** of things you have actually used and can explain:
- Try & Catch / Exception handling
- File handling
- GUI / User interfaces
- Complex loops / Selection / Sorting
- Inheritance / Polymorphism



Sources

- Must use Harvard referencing. This is ANY code that you have used/borrowed or adapted from any source.

Bradley Ruder, D. (2014). *The Teen Brain | Harvard Magazine Sep-Oct 2008*. [online] Harvardmagazine.com. Available at: <http://harvardmagazine.com/2008/09/the-teen-brain.html> [Accessed 14 Oct. 2014].

Department for Education, (2012). *Pupil Behaviour in Schools in England*. Nottingham: Department for Education. [Accessed 31 Oct. 2014].

Dataview.ofsted.gov.uk, (2014). *Ofsted Data View*. [online] Available at: <http://dataview.ofsted.gov.uk/> [Accessed 14 Oct. 2014].

Cheat! Use: www.citethisforme.com/

The woolly rule

- We will only award up to **11 marks** in this section. This is because nobody knows what really is “complex code”... opinion varies between people.

