

CS121/IS223

Java Exercise Set 1

NOTE: you should aim to complete these questions within a week of the class that focuses on the topic concerned – this sheet covers Java fundamentals, conditionals and loops, so there is quite a bit of material. The sheet accompanies the first few weeks of classes, so use this to pace yourself early on.

Exercise sheets are designed to accompany classes and to give you practice with the programming ideas introduced in those classes. You are expected to attempt as many of the questions as you can. If you can't do the questions or if your programs don't work, you should seek my help in office hours or visit the CSIS tutors BEFORE we move on to the next topic ... or you will fall behind on this class and do badly on the tests.

Homework assignments will not be collected. It is your responsibility to keep up, ask questions and correct your own work. You will know whether your programs work or not - - that is the beauty of programming! If you would like feedback on what you are doing and how you are doing it, please see me in my office hours and bring copies of your work with you -- I am always happy to help. However, I will **not** respond to emails that say "it doesn't work" with code attached that you expect me to debug for you!

You may get assessed on your ability to answer these questions randomly in class sessions. I might ask you to give me a copy of all your work to date...so be organised and save all this as you go along...and back up your work.

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Please put the following information at the top of ALL your programs:

- The exercise number and name of the program
- Your name(s)
- Your email address(es)
- Date you created the program

Back up and save your work!!!

PART A – PURELY OPTIONAL STUFF (week 0):

You are strongly encouraged to try **all** the Exercises and Programming Projects at the end of Chapter 1 (in whatever version of Lewis & Loftus you have) because these are just basic things you should know. You should find these questions straightforward after reading the Chapter. I expect you to be able to do these questions with no problem – see me if you can't!

PART B – FUNDAMENTALS (week 1):

You are also strongly encouraged to try the following questions from the end of Chapter 2 (in whatever version of Lewis & Loftus you have – they are the same questions):

- Exercises 2.1 – 2.7. (**optional**)
- Programming Projects 2.1 – 2.7. (**mandatory**)

Note: if you have time, you should try as many of the exercises and programming projects as you can at the end of Chapter 2. The more practice you get with Java, the better you will become and the easier you will find exams!

PART C – CONDITIONALS (week 2):

You should complete the following questions (these are the same questions but they appear in different chapters in the different versions of the text):

- Exercises 3.1 – 3.7 (in 3rd edition of Lewis & Loftus) *OR* exercises 5.1 – 5.6 (in 4th, 5th and 6th edition of Lewis & Loftus). **(mandatory)**
- Try Programming Project 3.2 (in 3rd edition of Lewis & Loftus) *OR* Programming Project 5.1 (in 4th, 5th and 6th edition of Lewis & Loftus). **(try what you can)**

PART D – LOOPS (week 3):

If you have the 3rd edition of Lewis & Loftus, then go to Chapter 3:

- Exercises 3.8 – 3.11. **(optional – you should work out the expected output, run the code and check that you are right)**
- Exercises 3.12 – 3.20. **(mandatory)**
- Programming Projects 3.2, 3.5 and 3.13 (parts a, b, c and d). **(mandatory)**

Else if you have the 4th, 5th or 6th edition of Lewis & Loftus, then go to Chapter 5:

- Exercises 5.7 – 5.10. **(optional – you should work out the expected output, run the code and check that you are right)**
- Exercises 5.11 – 5.19. **(mandatory)**
- Programming Projects 5.8 and 5.13 (parts a, b, c and d). **(mandatory)**

The AIM is to get all these done by the end of week 4... and remember... you can work in pairs if you want and get help from the tutors or me if you are stuck. It is your responsibility to do this work and seek help if needed.

NOTE: If you don't have a version of the course text book "Java Software Solutions" by Lewis & Loftus, then you will need to persuade a friend to let you borrow theirs! Also, do let me know if I have mixed up any of the numbering as I convert between text book editions for you!

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