COSC1284

Programming Techniques

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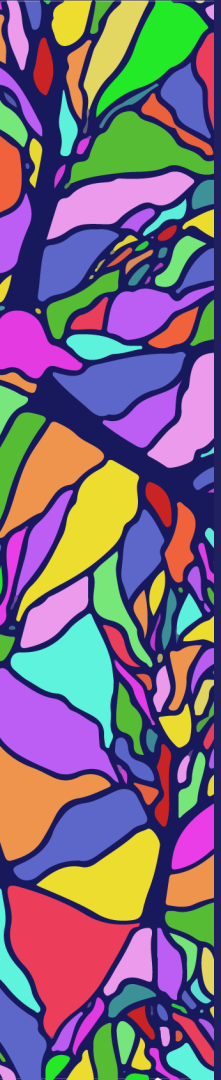
What's next...

RMIT UNIVERSITY

Outline

- Announcements
- Assignment in Focus
- Feedback: Your questions answered
- Code Examples (Sumarise Concepts)



Announcements & Discussions

Announcements

Assignment 1

- Due end of next week Friday 21st August.
- Read and completed all the exercises in your textbook from Chapters 5.
- Completed your latest in-progress submission for your assignment.
- Are up to date with any discussion posts.
- Are making use of the discussion forum to get any of your programming doubts cleared up.
- If you need assistance outside of the discussion forum please e-mail me to make a time to discuss.

Feedback – Your Questions Answered

"Contains at least one reachable else if statement"

- This does not mean that every ‘if’ statement must have an ‘else if’

“Returning value”

- This does not mean printing values.
- Generally speaking you do not want to litter your code with print statements all over the place.
- This promotes flexibility, code re-use and maintainability.

Error message for out of range

- You do not need to specify how many numbers were out of range.

Magic Numbers

- If in doubt create a constant. Look for repeated values. Consider readability.
- Some exceptions i.e if(x > 0)

Feedback – Your Questions Answered

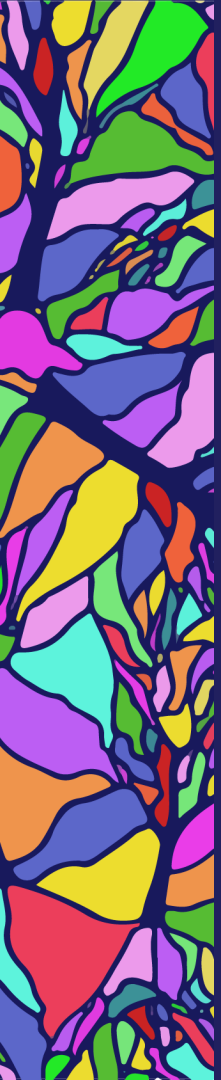
”Magic Numbers"

- This does not mean that every ‘if’ statement must have an ‘else if’

Feedback – Your Questions Answered

Use of class variables

- These should be avoided but are not prohibited.
- You will be marked down if you use them inappropriately.
- As a general guide if the object is only being used by two methods then you should pass the object from one method to another.
- If you are using the same object in three or more methods then you ‘may’ (but not necessarily) declare and instantiate the object at the class level.
- When declaring variables always think about making them as restrictive as you can.
- For example: If you have ten methods in a class and you have only two of those methods needing access to a particular variable. Declaring it at the class level means that every method in the class can access that variable if when there is no need for them to have access to that variable.



Chapter 5

Assignment in Focus

Chapter 5

- Relational operators
  - Checking to see if chosen numbers match drawn numbers
    x == y
- If-else | switch statements
  - Menu calls the appropriate method after evaluating the user's input.
  - Unit Converter evaluate the parameters to determine which calculation to perform.
  - Lotto check if a match was found.
- Logical operators
  - Lotto checking for numbers within the correct range.
    x > 0 && x < 10
- Validating input
  - This is a good strategy but you cannot rely on this technique alone
  - Each method of your program must work independently we will bypass any pre-validation when testing your methods.

Chapter 5 – Conditionals & Logic

- relational operators
- boolean values
- If | else if | else
- switch
- branching
- code blocks
- nested branching
- good indentation
- logical operators
- validating input

- conditional statements
- chaining
- flag
- Casting
- NaN

Code example

- Writing simple programs with best practice code.