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Loops 3

CS 124 – Intro to Software Development

Macbeth – Lesson 6.3

Agenda

- Opening Prayer
- Music Friday
- Q&A
- Review Assignment 24
- Learning Together – More Loops
- Project 06
- Looking Ahead

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Music Friday

Hark, All Ye Nations!

Hark, all ye nations!
Hear heavens voice
Thru ev'ry land that all may rejoice!
Angels of glory shout the refrain:
Truth is restored again!

Oh, how glorious from the throne above
Shines the gospel light of truth and love!
Bright as the sun, this heavenly ray
Lights ev'ry land today.

D&C 128:19

Now, what do we hear in the gospel which we have received? A voice of gladness!

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Review Assignment 25

Calendar

- Step 1: Write function stubs.
- Step 2: Compile it and make sure it compiles.
- Step 3: Write comments above each function so you know what it should do
- Step 4: Implement one function.
- Step 5: Call the function in main so you can test it
- Step 6: Compile and test it.

- Repeat Steps 4, 5, and 6 until you are done.

calculateOffset

The calculateOffset algorithm will count the number of days in previous years. For each year:

a) If it was a leap year, then the year had 366 days

b) If it was not a leap year, then the year had 365 days

The calculateOffset algorithm will count the number of days in the previous months for this year: For each month:

a) If the month was Sept, Apr, Jun, or Nov, then the month had 30 days

b) If the month was Feb and it was a leap year, then the month had 29 days

c) If the month was Feb and it was not a leap year, then the month had 28 days

d) Otherwise, the month had 31 days

The total days can be used to determine the offset (Monday = 0, Sunday = 6). You can use the modulo (%) operator to convert the total days to an offset.

Project 06

- Project 06 requires that you write pseudocode for `computeOffset` and `displayTable` functions.
- You are required to type your project (with your name on it), print it out, and turn it on Monday.
- You will be graded on how well you communicate your algorithm using pseudo code. Use the pseudo code as described in the textbook.

Looking Forward

- Before Class on Monday
  - Turn in Project 06 – Pseudocode (typed up and printed out)
  - Read Section 2.6 – Files
  - Assignment 2.6

- Continue work on your Calendar Project
  - By Monday, the following functions should be done:
    - numDaysInYear
    - numDaysInMonth
    - displayTable
    - getYear
    - getMonth
    - isLeapYear - https://www.timeanddate.com/date/leapyear.html
    - computeOffset

    - main – write some driver code to test the functions above – remember to declare the variables in main for the values returned by these functions.

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