



CPSC 1620 A – Fundamentals of Programming I – Fall 2021

Assignment 7 [25 points]

Due November 22nd, 2021 at 11:59 PM

General Instructions

- Go to Assignment 7 A on `gitlab.cs.uleth.ca`.
- Fork Assignment 7 A.
- Clone it in Atom.
- Create a file `myDate.cc` that contains your program.
- Work on your assignment. Each time you go back to work on your assignment, make sure to follow the standard: `fetch/pull` → `work` → `stage all/commit/push` procedure.
- Make sure to make the last push before the assignment deadline as the last push before the deadline will be graded.
- Once you are done:
 - Go to your assignment on Gitlab
 - Check if you are satisfied with your solutions
 - From the left sidebar choose `Project information` – `Members`
 - Switch from `Invite member` to `Invite group`,
 - Enter the group name `Team1620` in the `Select a group to invite` field,
 - Leave `Max` role as `Maintainer`,
 - Click the `Invite` button.

Problem

1. **[25 points]** Write a program `myDate.cc` that takes a date in the following format: December 24th, 2021 and extracts the day, month, and year as 3 integers. Your program should have and use at least the following functions:
 - (a) Write a function `getDate` that prompts a user to enter a date as a string and returns it.
 - (b) Write a function `extract` that takes as its parameter a date and returns the day, month, and year as 3 integers. (Hint: you can use the function `isdigit(c)` that returns true if `c` is a digit character and false otherwise.)
 - (c) Write a function `convertDigits` that takes as its parameter a string of digits and converts it to an int. (Hint: to convert a digit character to a digit number use `static_cast<int>('d') - static_cast<int>('0')` where `d` is 0, 1, ..., 9)
 - (d) Write a function `convertMonths` that takes as its parameter a month as a string and returns a corresponding number from 1 to 12 (1 for January, ..., 12 for December).

Write a program that repeatedly prompts the user to enter the date in the previous format. The program should then output it as in the examples below.

For example,

```
Enter a date -- December 24th, 2021
24/12/2021
Try again (Y/N) -- Y
Enter a date -- February 28th, 2021
28/2/2021
Try again (Y/N) -- Y
Enter a date -- February 2nd, 2021
2/2/2021
Try again (Y/N) -- N
```