

Programming with Persistent Data CMPU 1028

Week 5

Lab4

Exercises with files using *structs*.

Write all these C programs such that the programs can accept input from the user in relation to a student credit union account. The struct will be called `creditUnion` and the variable will be `DIT`

To open an account you are required to provide 2 evidences of postal address¹, your passport for photographic id and date of birth², a Personal Public Service number³, first and surname and phone number. Once processed you are provided with a credit union account and the balance of 0.

- a) Write a struct to contain the required variables to represent the credit union account.
- b) Write the program that will initialise the first student into the *DIT* struct of the credit union template. Use the dot operator on the members values.

Jane Ferris, 01 402300, DIT, Kevin Street, Dublin2, PPS: 123456X Date of Birth 1/01/1999.

- c) Refine that structure to include two nested structures for the account holders date of birth and address.
- d) Update the program of b) such that the DIT student (Jane) will initialise and be hardcoded into the program.
- e) Alter the code of d) such that the data on the DIT student (Jane) is written into a file (you select the name & extension).
- f) Write a new program reusing any code that will take the data from the user for the student variable `DIT2`. This will be saved to file and then read from the same file and displayed on screen.

¹ Standard: first line of address, second line, townland, County. No variable for postal code required.

² You may define this format; European or US day, month, year or month, day, year

³ This is a mix of numbers and characters known as a PPS number.