

# **Swinburne University of Technology Sarawak**

## **COS10009 Introduction to Programming**

### **File Input / Output & Custom Data Type (Lab 07)**

#### **Pass Task 7.1 Music Records**

**Task:** Produce a simple C music player program which reads and writes custom data types (records).

##### **To Do**

Use the code provided in 7\_1.c (from this task's resources) to get started. You must enhance the code provided as follows:

- a. Add the missing code (input statements) to the function/method `read_album()`
- b. Add the missing code (output statements) to the procedure/method `print_album()`
- c. Optional: Add an `initialize()` method to the Album class/record definition.

#### **Pass Task 7.2 Track File Handling**

**Task:** Enhance a simple C music player program, which reads custom data types (records) from a file and writes them to the terminal.

##### **To Do:**

1. Download 7\_2.c and input.txt from resources folder for this task.
2. You must enhance the code provided (you may need to reuse some code from previous task)
3. Complete the provided code so that it reads in an array of tracks then prints them out. (You need to loop in order to read in a number of records and place them in an array, then loop to print them out.)

### **Pass Task 7.3 Album File Handling**

**Task:** This task allows you to enhance and build the music player application that reads in an album with multiple tracks from a file then displays the album and track information to the terminal. You will learn how to declare and work with arrays of records and enumerations.

#### **To Do:**

Use the provided code 7\_3.c (from resources folder for this task) as a basis for your program. Your application must read the album and track information from the provided album.txt file (see resources folder for this task). The program must read in a single album and a number of tracks for the album as well as a genre for the album from a file. You can have as many genres as you like, but these must be defined using an enumeration. For each track you must read in a track name and a track filename so re-use the code from previous task.