

### Exercise 3.8.1

Write a program that will declare an array and initialize all elements to 0, then loops through all elements and replace the 0's with 1's, and then loops through all elements again printing each element on the screen. The program should follow the instructions below:

- 1- Define the macro **ARRAY\_SIZE 100**
- 2- Use the function prototype: **int toggle( int a[ ] );**
  - loop through a[]
    - If the element is 0, change it to 1
    - If the element is 1, change it to 0
  - return 0 to main( )
- 3- Use the function prototype: **int state( int a[ ] );**
  - loop and printf() to displays the state of each element (0 or 1)
  - returns to main( ) with value 0
- 4- In function, main( )
  - declare an array ( **ar[100]** ) and initialize all elements to 0
  - Call toggle(), pass the array (ar)
  - Call state( ), pass the array (ar)
  - Terminates with a return statement with value **EXIT\_SUCCESS** (hint: you will need to include the <stdlib.h>)

- Please save and submit your source code (.c file) solution.
- Solution file naming convention:
  - First\_name\_Last\_name\_exercise\_number.c
  - Please use ( - ) to indicate the exercise number
  - Example: Haidar\_Alaubiydy-3-8-1.c