CPSC 3125, Operating Systems Lab Assignment

Lab 03

1 Instructions

Write a C program that takes as input a decimal (base 10) integer and returns a binary (base 2) integer. Print both integers. See below for the expected output. Please work together in pairs. The word " pair" means exactly two people. (Exception: one trio will be permitted if the class has an odd number of students and no student elects to work alone.)

Here is the algorithm to use:

```
number = input(base 10integer)
result = output(base 2 integer)
while number is greater than zero
    mod is number modulus 2
    increment result by mod from right to left
    number is number divided by 2
    //eventually, number will reach zero and the while loop will terminate
return result
```

2 Output

Your program should produce the following output:

```
convert a decimal integer to a binary integer
Please enter a decimal (base 10) integer: 567

You entered 567
The resulting binary integer is 1000110111
```

3 Lab deliverable

Your deliverable consists of (1) the C source code, and (2) a text document showing the output of the program.