



The University of the West Indies, St. Augustine
Department of Computing and Information Technology
INFO 3601 Assignment 1 – 10%
Due: 03/10/2025 Friday; 5:00 p.m.

Submission Instructions

For Question 1, 3 & 4: Upload the scripts directly to the submission box. **No zipping, no folders or subfolders.**

For Question 2: Upload the zip file, which contains all the directories, and files.

File submissions Maximum file size: 100MB, maximum number of files: 20

Files

setup.bat setup.sh

stat.sh receipts

Save changes Cancel

A screenshot of a file upload interface. On the left, it says "File submissions" and "Maximum file size: 100MB, maximum number of files: 20". In the center, there's a grid view showing four items: "setup.bat" (document icon), "setup.sh" (script icon), "stat.sh" (script icon), and "receipts" (zip archive icon). At the bottom, there are "Save changes" and "Cancel" buttons.

Question 1: Windows Batch exercise

Create a “setup.bat” script file that creates a “Library” folder in the Documents directory with the following folders and files. (**Note: this script should work regardless of its location in the filesystem and the currently logged in user**)

- a. About.md should contain “Alma Jordan Library”
- b. Algorithm.txt should contain “Operating Systems Concepts by Abraham Silberschatz”.

```
C:\USERS\VIJAY\DOCUMENTS\LIBRARY
|
|   About.md
|
|---CompSci
|     \___Algorithm.txt
|
|---Physics
|
|
|---Chemistry
```

[5 marks]

Question 2: Windows Automation

Create the following structure of customers and their data files data.txt. Each data.txt file contains 6 integers representing quantities and prices for apples, bananas and oranges purchased by the customer.

```
C:\USERS\SNICK\Desktop\QUESTION2
|
+---alice_smith
|   data.txt
+---bob_jones
|   data.txt
+---carol_clark
    data.txt
```

- A) Implement a c program named billing.c and compile it into calc.exe that takes 3 quantities and 3 prices of the products as input, prints the bill of items and totals. Both files should be in the root of the question2 folder.

Example:

Input: 1 3 5 7 9 2

Output:

<p>XYZ Shop Port of Spain, Trinidad Ph. : 100 - 1000 =====</p> <p>BILLING RECEIPT</p> <p>=====</p> <table><thead><tr><th>Product</th><th>Qty</th><th>Price</th><th>Subtotal</th></tr></thead><tbody><tr><td>Apples</td><td>1.00</td><td>\$ 7.00</td><td>\$ 7.00</td></tr><tr><td>Oranges</td><td>3.00</td><td>\$ 9.00</td><td>\$ 27.00</td></tr><tr><td>Bananas</td><td>5.00</td><td>\$ 2.00</td><td>\$ 10.00</td></tr><tr><td>TOTAL</td><td></td><td></td><td>\$ 44.00</td></tr></tbody></table> <p>=====</p> <p>THANK YOU FOR SHOPPING @ XYZ Shop</p>	Product	Qty	Price	Subtotal	Apples	1.00	\$ 7.00	\$ 7.00	Oranges	3.00	\$ 9.00	\$ 27.00	Bananas	5.00	\$ 2.00	\$ 10.00	TOTAL			\$ 44.00
Product	Qty	Price	Subtotal																	
Apples	1.00	\$ 7.00	\$ 7.00																	
Oranges	3.00	\$ 9.00	\$ 27.00																	
Bananas	5.00	\$ 2.00	\$ 10.00																	
TOTAL			\$ 44.00																	

- B) Implement a receipts.bat batch script in the root folder so it executes calc.exe for each customer using each of their data.txt file and creating a receipt.txt file in their folder containing the output of calc.exe as well as the currently logged in username and date on top. An example of receipt.txt is shown below.

```
Cashier: USERNAME| 19/09/2025 15:10:40.36
    XYZ Shop
    Port of Spain, Trinidad
    Ph. : 100 - 1000
=====
    | | | BILLING RECEIPT
=====
Product      Qty     Price     Subtotal
-----
Apples        1.00   $ 7.00   $ 7.00
Oranges       3.00   $ 9.00   $ 27.00
Bananas       5.00   $ 2.00   $ 10.00
-----
TOTAL           $ 44.00
=====
THANK YOU FOR SHOPPING @ XYZ Shop
```

USERNAME should be currently logged user and date & hour should be system date & time. Submit receipts.zip, it should contain all the directories and files.

[10 marks]

Question 3: Linux project deployment Script

Create a script “setup.sh” to automate the deployment of a flask application. The script must install all software dependencies such as:

1. Python3
2. Pip3
3. Git

Use git to clone [this repository](#).

Install dependencies

Initialize the database (instructions in readme)

Run the with gunicorn

[5 marks]

Question 4: Linux Automation

Write a script “stat.sh” that will do the following:

1. Ask for a file name and remove the input file that was provided.
2. Before removing, backup the file in the Backup folder.
3. Everyday at 5 p.m., backup all the files in Backup folder as one compressed file (should be named using system date like DDMMYYYY.tar or DDMMYYYY.zip) and remove the Backup folder.

[10 marks]