**Exercise 4: IPO Diagram**



**Instructions**

Below are two scenarios (A & B) for which you have being asked to write a program using an IPO diagram. Enter your answers via the two tables provided.

Please save a copy and push the file to your GitHub account. Once this is done, take a screenshot of the file being uploaded to GitHub and include the screenshot in the space provided below.

FINALLY, upload this Answer Sheet to the link provided in Moodle.

**Tip Calculator**

1. Write an application that allows a restaurant or bar customer to calculate the amount of a tip to give their wait person. The program should allow the customer to specify the bill amount and the percentage of tip they would like to give.

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| --- | --- | --- |
| **Input** | **Processing** | **Output** |
| percentageOfTip (numeric)  billAmount (numeric) | READ billAmount from user  READ percentageOfTip from user  finalTip = billAmount % percentageOfTip  finalBill = billAmount + finalTip  PRINT finalBill | finalBill (numeric)  finalTip (numeric) |

**Movie Theatre**

1. The three ingredients required to make a bucket of popcorn in a movie theatre are popcorn, butter, and a bucket. Write a program that requests the cost of these three items and the price of a serving of popcorn (assume we have only one size). The program should then display the profit.

|  |  |  |
| --- | --- | --- |
| **Input** | **Processing** | **Output** |
| popcornCost  butterCost  bucketCost  popcornPrice | READ popcornCost READ butterCost READ bucketCost  READ popcornPrice  popcornProfit = popcornPrice - bucketCost - butterCost - popcornCost  PRINT popcornProfit | popcornProfit |