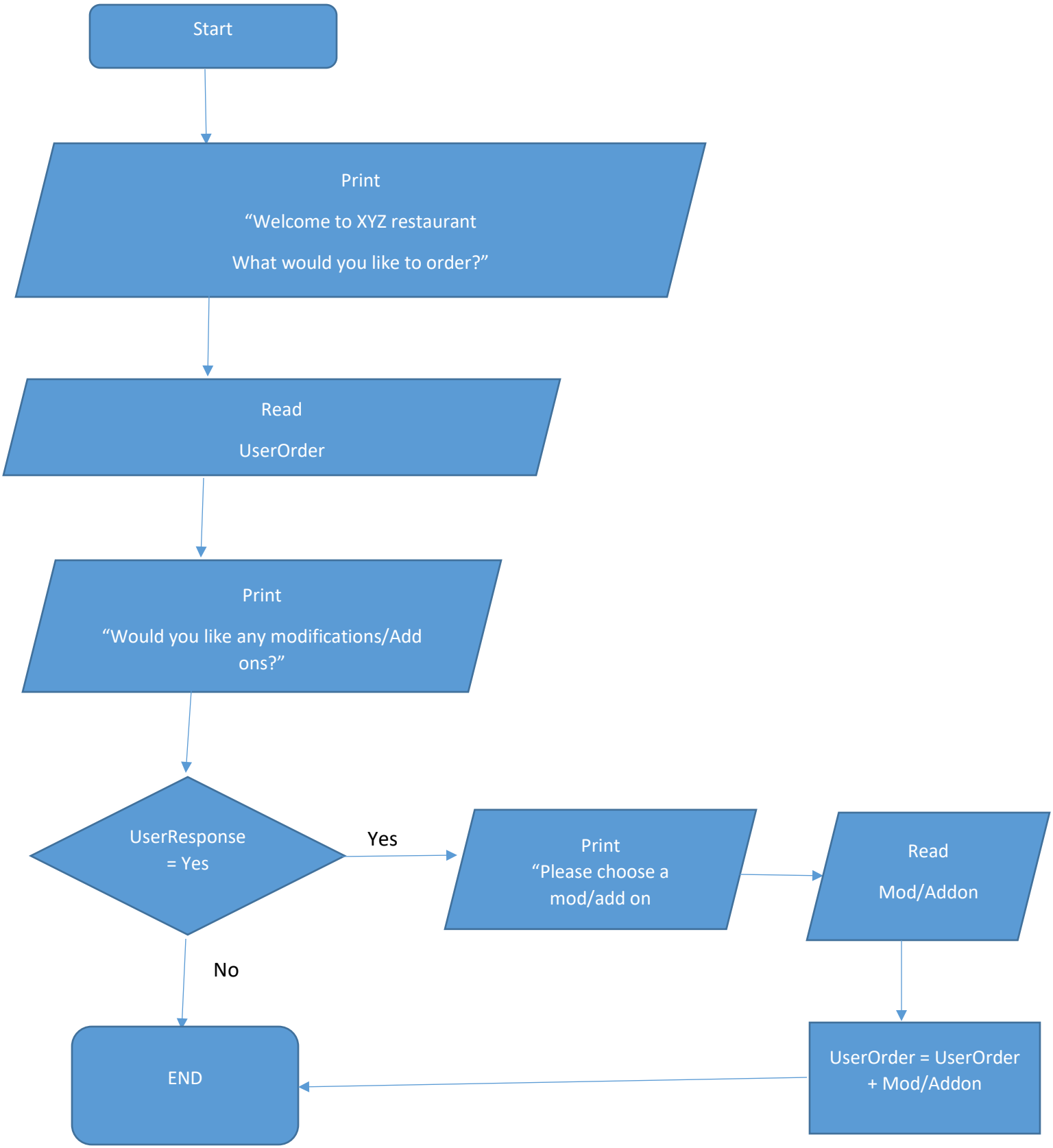
Lab Task 1:

Flowchart:



Pseudocode:

Start

Print: “Welcome to XYZ Restaurant what would you like to order

Read: UserOrder

Print: “Would you like any modifications/Add ons?”

Read: UserResponse

IF UserResponse == Yes THEN

  Print: “Please choose a mod/add on”

  Read Mod/Addon

  UserOrder = UserOrder + Mod/Addon

  END

ElSE:

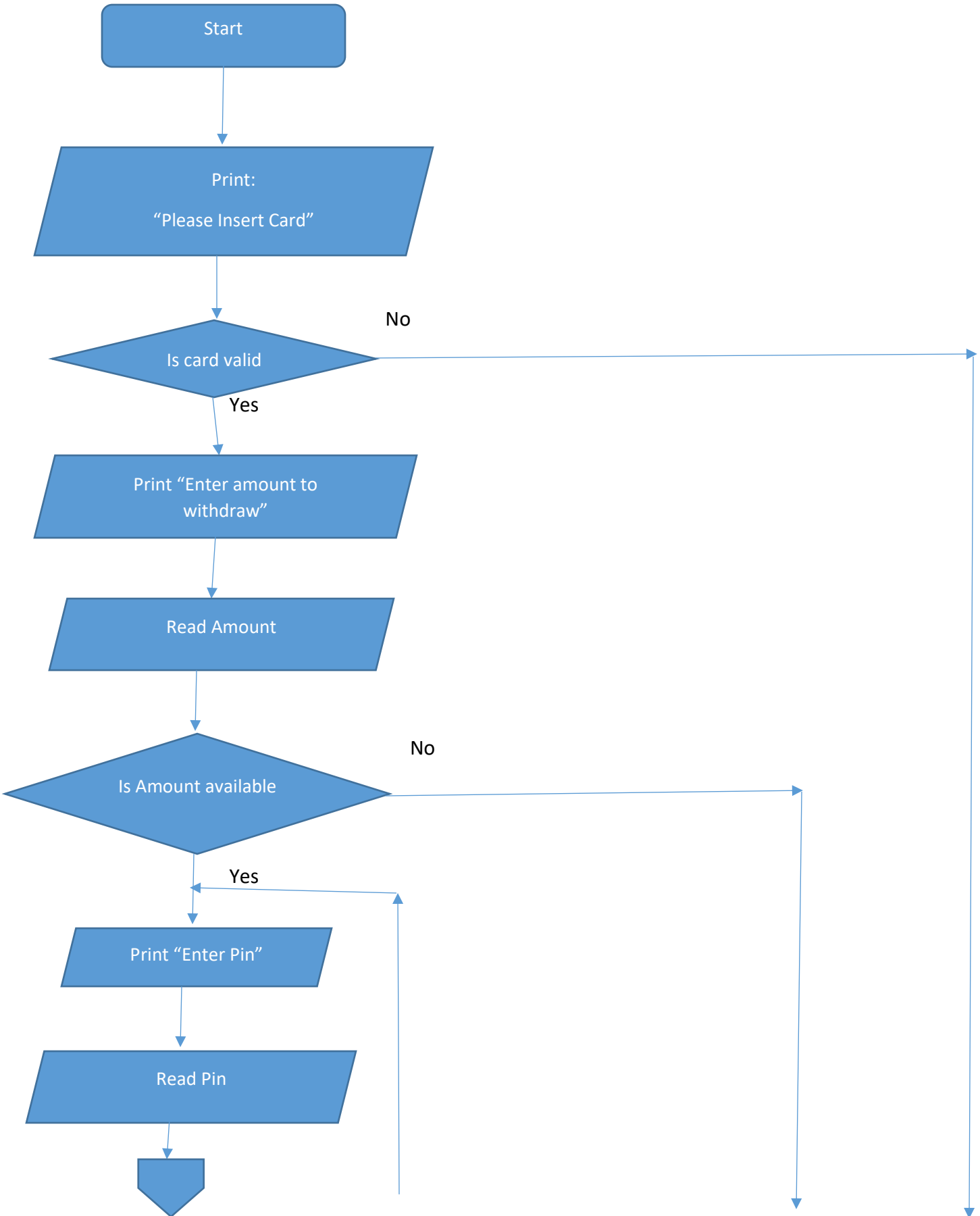
 END

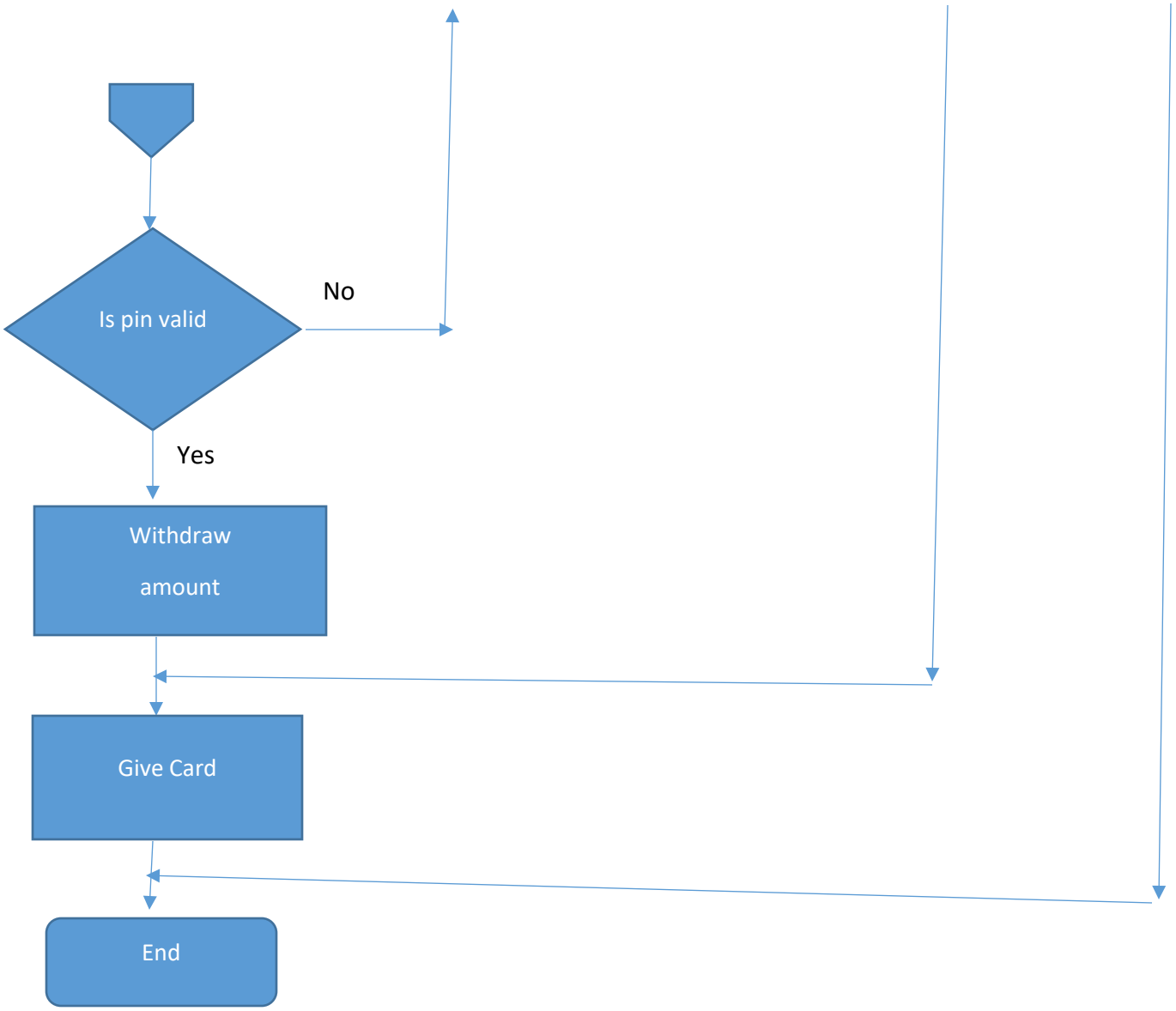
Algorithm:

- Display a message to the customer welcoming them to the restaurant and asking for their order
- Ask the server to enter **UserOrder**
- Display a message to the customer asking them if they want a modification or an Add On
- If the **UserResponse** is No then end the program
- If the **UserResponse** is Yes:
    1. Display a message to the customer asking them to choose a modification or add on
    2. Ask the server to enter **Mod/Addon**
    3. Append the **Mod/Addon** to **UserOrder**
    4. End the Program

Lab Task 2:

Flowchart:





Pseudocode:

Start

Print: “Please enter Card”

IF Card == Valid THEN

Print: “Enter Amount to Widthdraw”

Read Amount

IF Amount == Available THEN

Print: “Please Enter Pin”

Read Pin

If Pin == Valid

Withdraw Amount

Return Card

END

Else:

Repeat from prompt to enter pin

Else:

Give Card

END

Else:

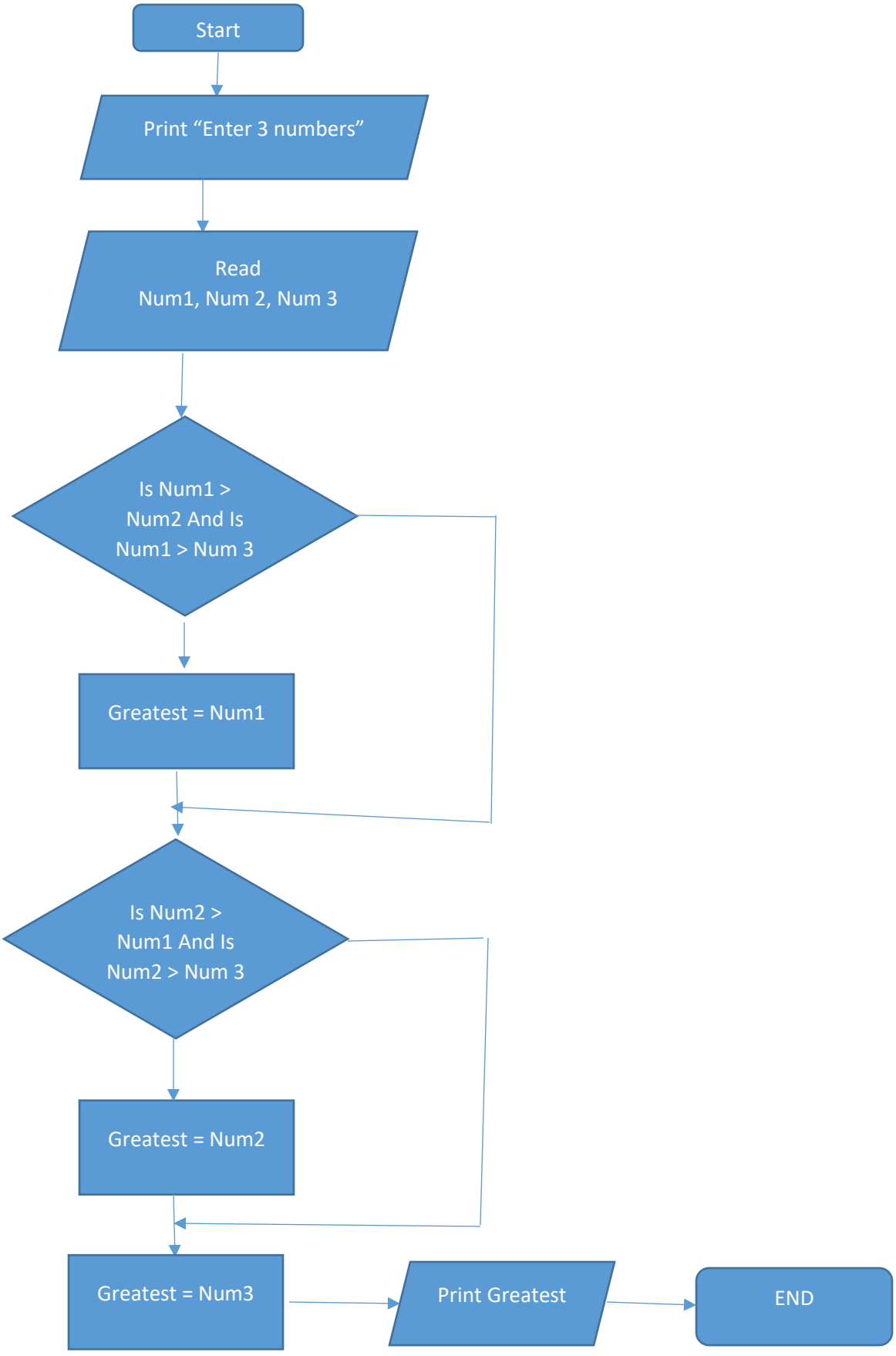
END

Algorithm:

- Ask user to insert card
- Check if card is **valid**
- If card is not **valid** end program
- If card is valid ask the user to enter and **amount** to withdraw
- Check if **amount** is **available**
- If not **available** return card and end program
- If **available** ask user to enter pin
- If pin is not **valid** ask user to reenter pin
- If pin is **valid** withdraw the **amount**, give card and end program

Lab Task 3:

Flowchart:



Pseudocode:

Start

Print: “Enter three numbers”

Read: Num1. Num2, Num3

IF Num1 > Num2 AND Num1 > Num3 THEN

  Greatest = Num1

ELSEIF Num2 > Num1 AND Num2 > Num3 THEN

  Greatest = Num2

Else
 Greatest = Num3

Print Greatest

End

Algorithm:

- Ask user to input **Num1**
- Ask user to input **Num2**
- Ask user to input **Num3**
- Check if Num1 is greater than **Num2** and **Num3**
- If yes then set **Greatest** to **Num1**
- If no then check if **Num2** is greater than **Num1** and **Num3**
- If yes then set **Greatest** to **Num2**
- If no then set **Greatest** to **Num3**
- Output the value of **Greatest** to user

Lab Task 4:

- Prompt user to enter **MonthNum**
- Define an Array with index 0 – 11 with each index value corresponding to one month of the Calendar
- Set **IndexVal** to (**MonthNum -1)**
- Output the month stored at the **IndexVal** in the array

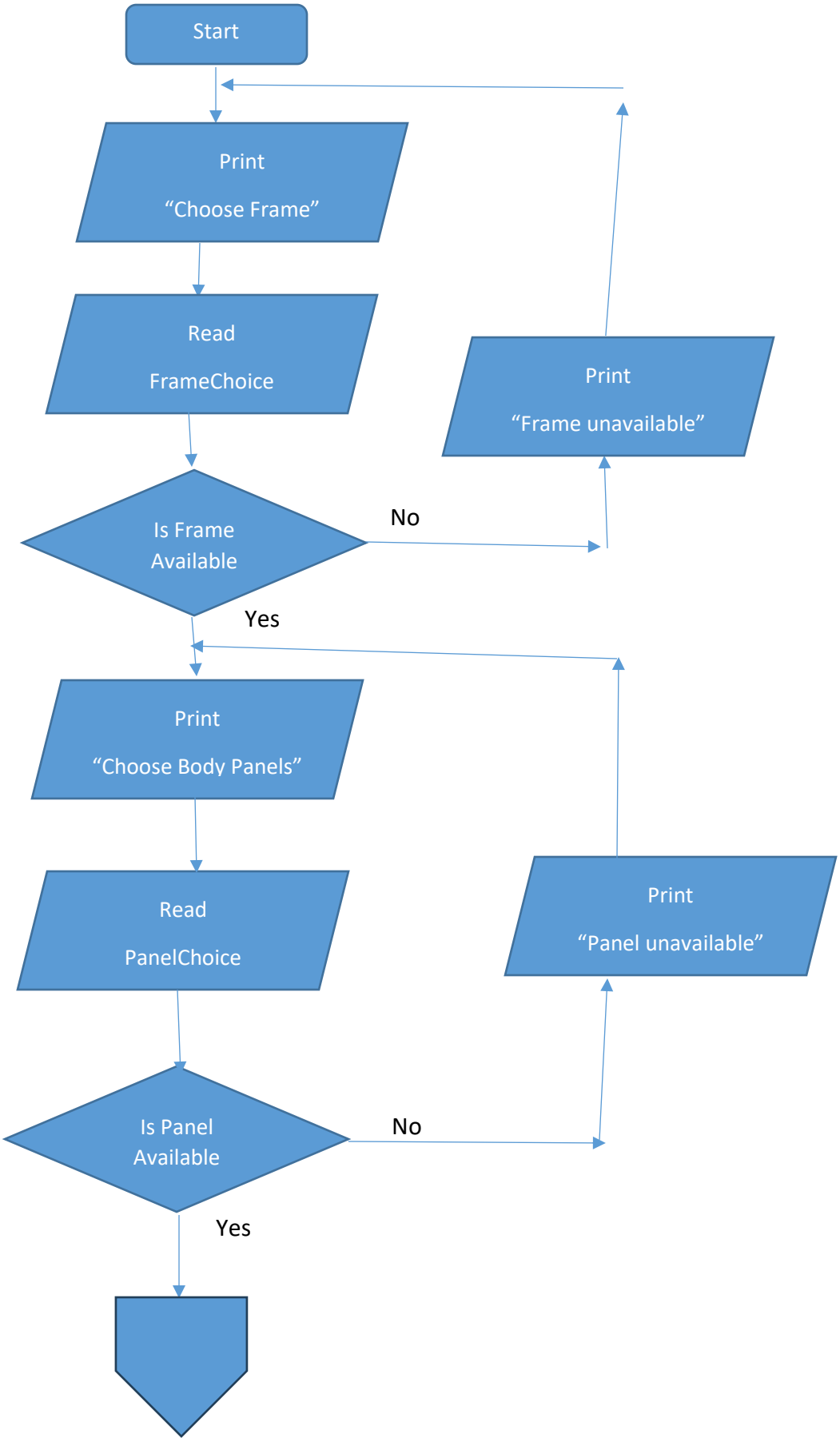
Lab Task 5:

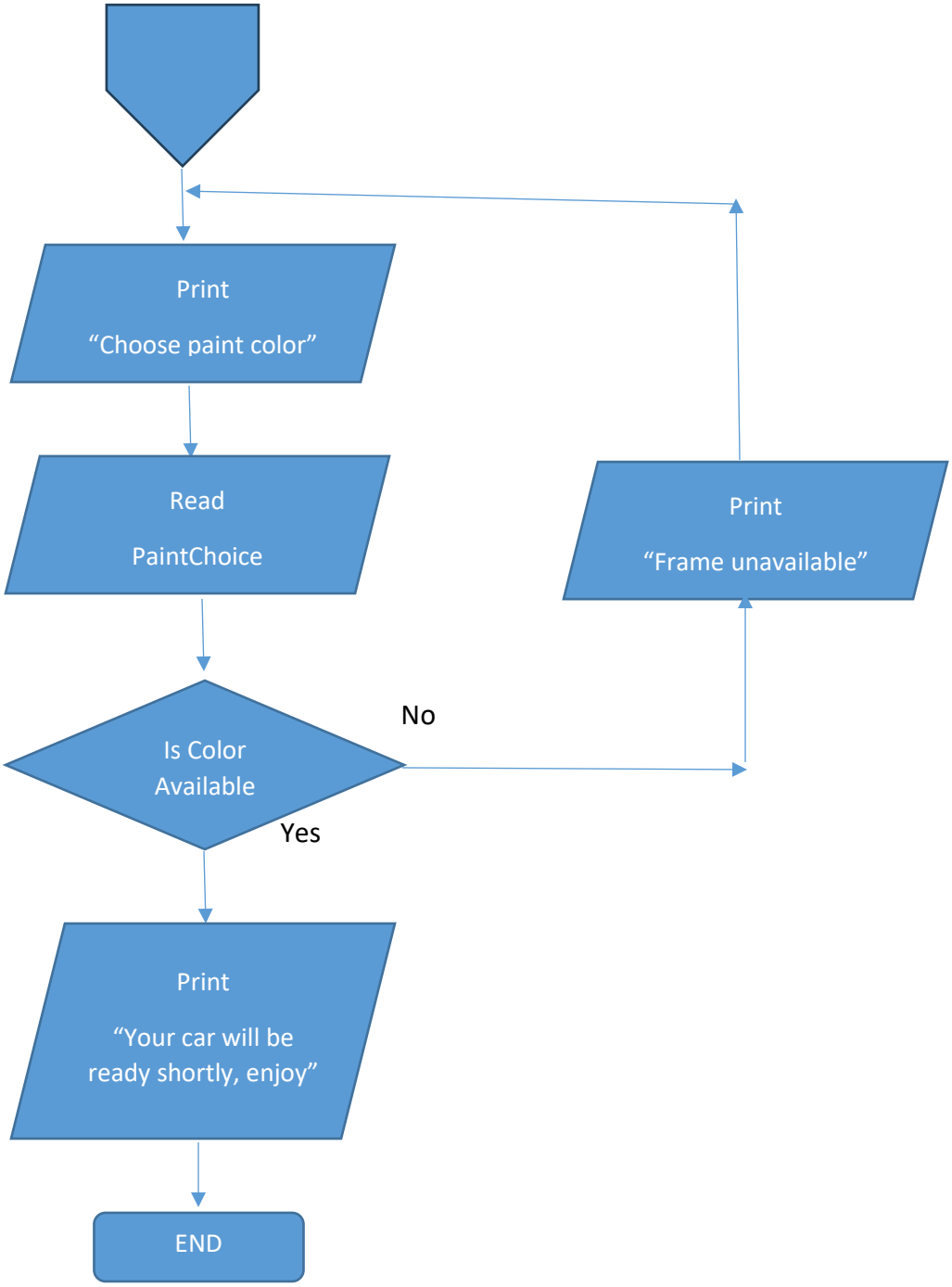
Start

Print: “Enter a Number an operator (+, -) and a Number in the given Order”

```
Read: Num1, Operator, Num2
IF Operator == “-” THEN
   Result = Num1 – Num2
ELSE
   Result Num1 + Num2
Print: Result
END
```

Lab Task 6:


Start
Print
"Choose Frame"
Read
FrameChoice
Is Frame
Available
No
Print
"Frame unavailable"
Yes
Print
"Choose Body Panels"
Read
PanelChoice
Is Panel
Available
No
Print
"Panel unavailable"
Yes


Print
"Choose paint color"
Read
PaintChoice
Is Color
Available
No
Yes
Print
"Frame unavailable"
Print
"Your car will be
ready shortly, enjoy"
END

Lab Task 7:

Start

Print: “Enter a Number an operator (+, - , /, *) and a Number in the given Order”

Read: Num1, Operator, Num2

IF Operator == “-” THEN

  Result = Num1 – Num2

ELSEIF Operator == “+” THEN

  Result = Num1 + Num2

ELSEIF Operator == “/” THEN

  Result = Num1 / Num2

ELSE

  Result Num1 * Num2

Print: Result

END

Lab Task 9:

A `.gitignore` file is used to specify files and directories that Git should ignore, preventing them from being tracked in the repository to keep it clean and secure.

Lab Task 10:

Pseudocode is an intermediate human readable form of expressing an algorithm that does not follow specific syntax rules, instead uses common structures such as loops to outline the logic for a program. An algorithm a finite set of instructions that precisely defines the steps to solving a problem and is typically written in a way that can be implemented in any programing language