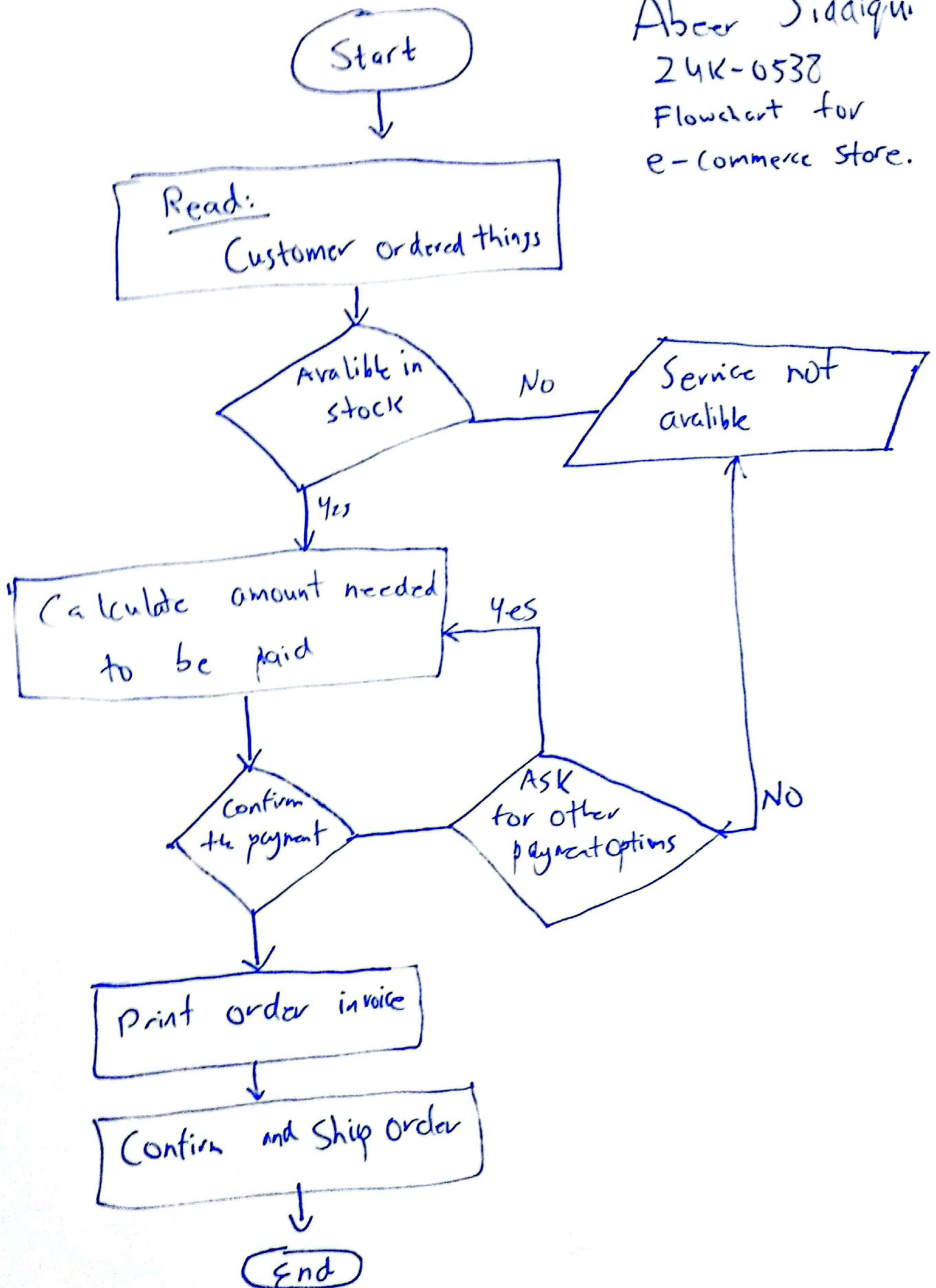


Abceer Siddiqui
24K-0538
Flowchart for
e-commerce store.



Abeer Siddiqui (24K-0538) PF-Lab Assignment

PSEUDOCODE

Find if the number is multiple of 5

```
START
INPUT number
SET remainder to number MOD 5
IF remainder = 0 THEN
    PRINT "The number is multiple of 5."
ELSE
    PRINT "The number is not multiple of 5."
ENDIF
END
```

Check if a character is uppercase or lowercase.

```
START
INPUT character
IF character >= 'a' AND character <= 'z' THEN
    PRINT "The character is lowercase."
ELSEIF character >= 'A' AND character <= 'Z' THEN
    PRINT "The character is uppercase."
ELSE
    PRINT "The character is neither uppercase nor lowercase."
ENDIF
END
```

Create a small calculator which only does '+' or '*' Operations. (Hint: Take three variable inputs with one being used for the operator)

```
START
INPUT num1
INPUT num2
PRINT "Enter the operator (+ or *):"
INPUT operator
SET ans to 0
IF operator = '+' THEN
    set ans = num1 + num2
ELSEIF operator = '*' THEN
```

```
    set ans = num1 * num2
ENDIF
PRINT ans
END
```

Check whether a given number is positive, negative, or zero.

```
START
    PRINT "Enter a number:"
    INPUT number

    IF number > 0 THEN
        PRINT "number is positive."
    ELSEIF number < 0 THEN
        PRINT "The number is negative."
    ELSE
        PRINT "The number is zero."
    ENDIF
END
```

Determine if a person is a teenager (between 13 and 19 years old).

```
START
    PRINT "Enter AGE:"
    INPUT age
    IF age >= 13 AND age <= 19
        PRINT "Yes the person is a teenager."
    ELSE
        PRINT "No the person is not a teenager."
    END
```

ALGORITHM

Implement an algorithm to determine if a given year is a leap year. A leap year is divisible by 4, but not divisible by 100, except if it is also divisible by 400.

1. IF year is divisible by 400 THEN

2. PRINT The year is a leap year.
3. ELSE IF year is divisible by 100 THEN
4. PRINT The year is not a leap year.
5. ELSE IF year is divisible by 4 THEN
6. PRINT The year is a leap year.
7. ELSE PRINT The year is not a leap year.

Implement an algorithm to count the number of occurrences of each character in a given string.

1. Ask the user to enter a string.
2. Initialize an empty object to store character counts.
3. For each character in the string:
 - If the character is already in the object, increment its count.
 - If the character is not in the dictionary, add it with a count of 1.
4. Display the object with each character and its corresponding count for the user.

Write an algorithm to calculate x raised to the power y (i.e., x^y) without using built-in power functions

1. Ask the user value of y
2. Ask the user value of x
3. Ans = 1
4. FOR i = 1 to y
5. Ans = Ans*x
6. End FOR
7. Display Ans

Calculate the area of a circle given its radius r

1. Ask the user value of r
2. Set Area to $3.142 * r * r$
3. Display Area

Find the median of three given numbers.

1. Ask user to enter the numbers 'A' 'B' and 'C'
2. Compare the number provided by the user
3. If $(A \geq B \geq C)$ or $(C \geq B \geq A)$ then B is the median
4. If $(B \geq A \geq C)$ or $(C \geq A \geq B)$ then A is the median
5. Else C is the median

