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Cohort: BCNS1102C

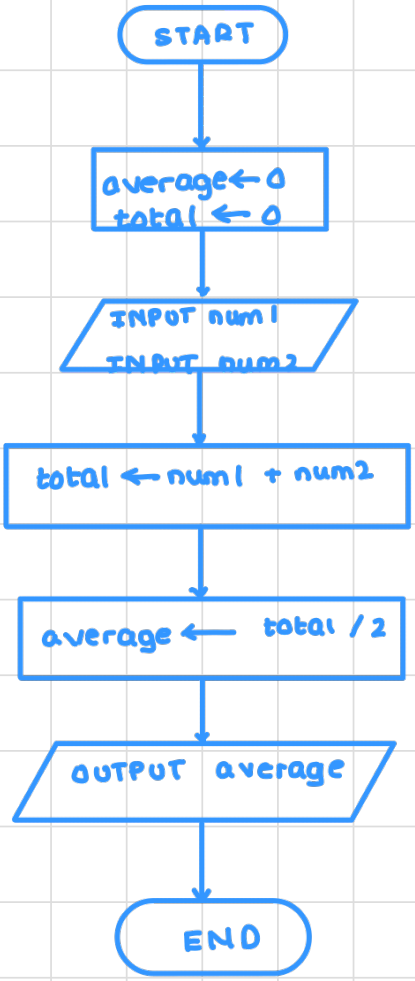
Module: Programming Techniques 1

Day and Time: Friday @ 13:00

Tutorial Week 2

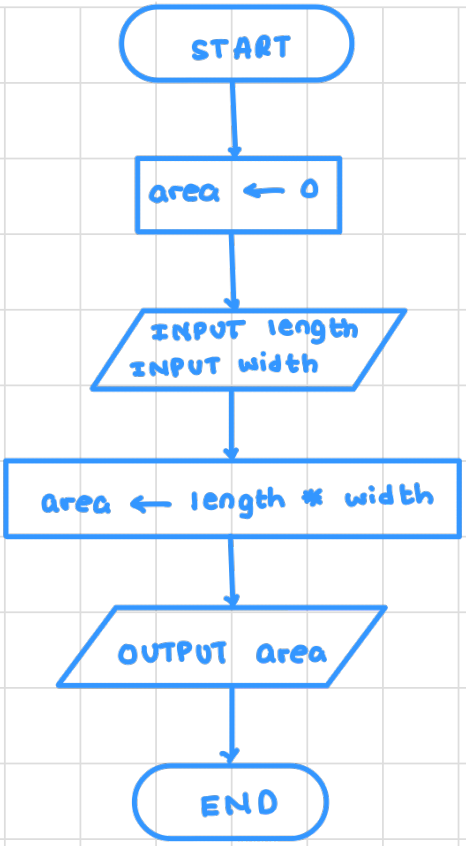
1.

```
DECLARE num1 : REAL
DECLARE num2 : REAL
DECLARE total : REAL
average ← 0
total ← 0
INPUT num1
INPUT num2
total ← num1 + num2
average ← total / 2
OUTPUT average
```



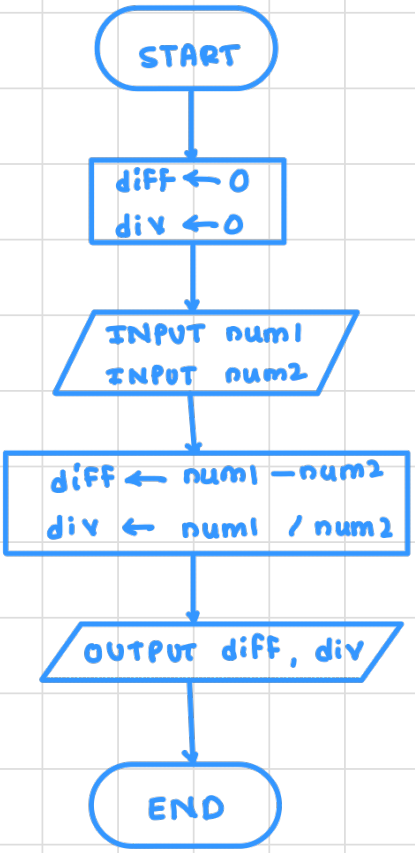
2.

```
DECLARE length : REAL
DECLARE width : REAL
DECLARE area : REAL
INPUT length
INPUT width
area ← length * width
OUTPUT area
```



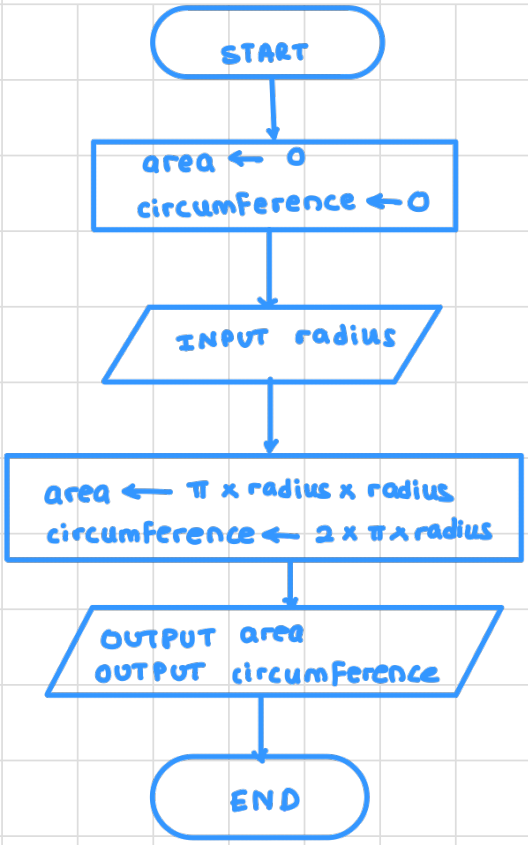
3.

```
DECLARE num1 : REAL
DECLARE num2 : REAL
DECLARE diff : REAL
DECLARE div : REAL
diff ← 0
div ← 0
INPUT num1
INPUT num2
diff ← num1 - num2
div ← num1 / num2
OUTPUT diff
OUTPUT div
```



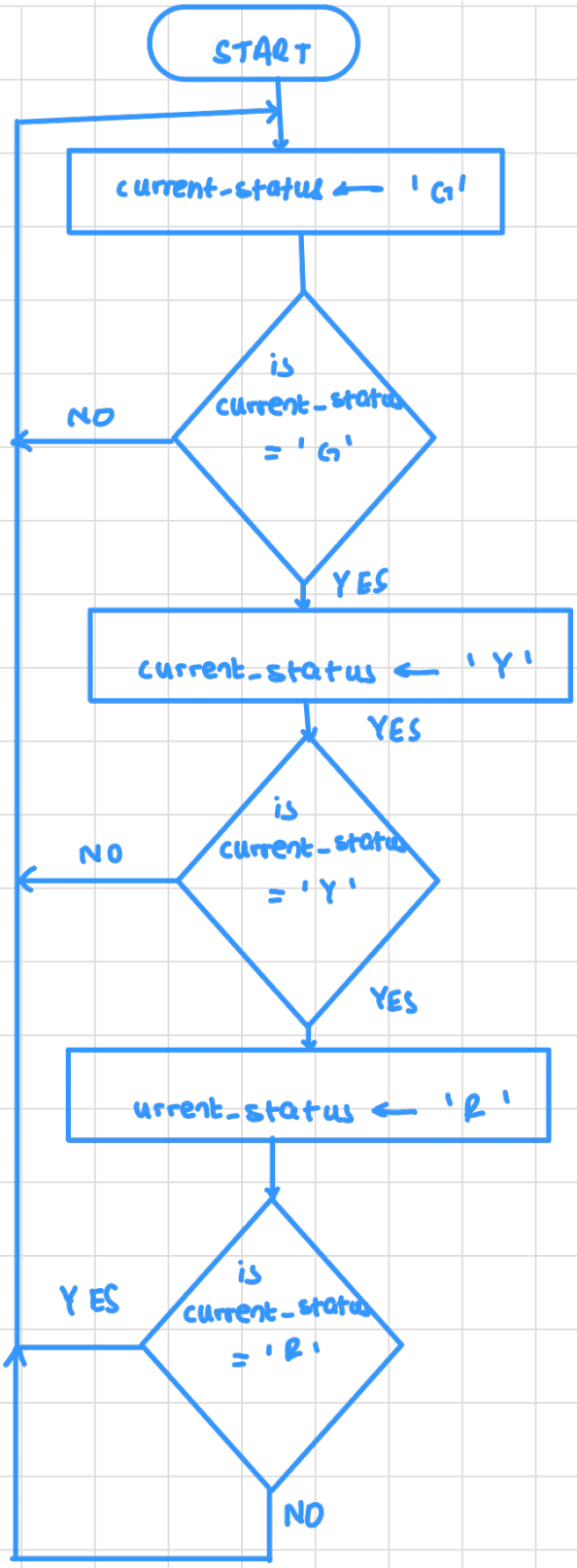
4.

```
DECLARE  radius : REAL
DECLARE  area : REAL
DECLARE  circumference : REAL
area ← 0
circumference ← 0
INPUT radius
area ← π x radius x radius
circumference ← 2 x π x radius
OUTPUT diff
OUTPUT div
```



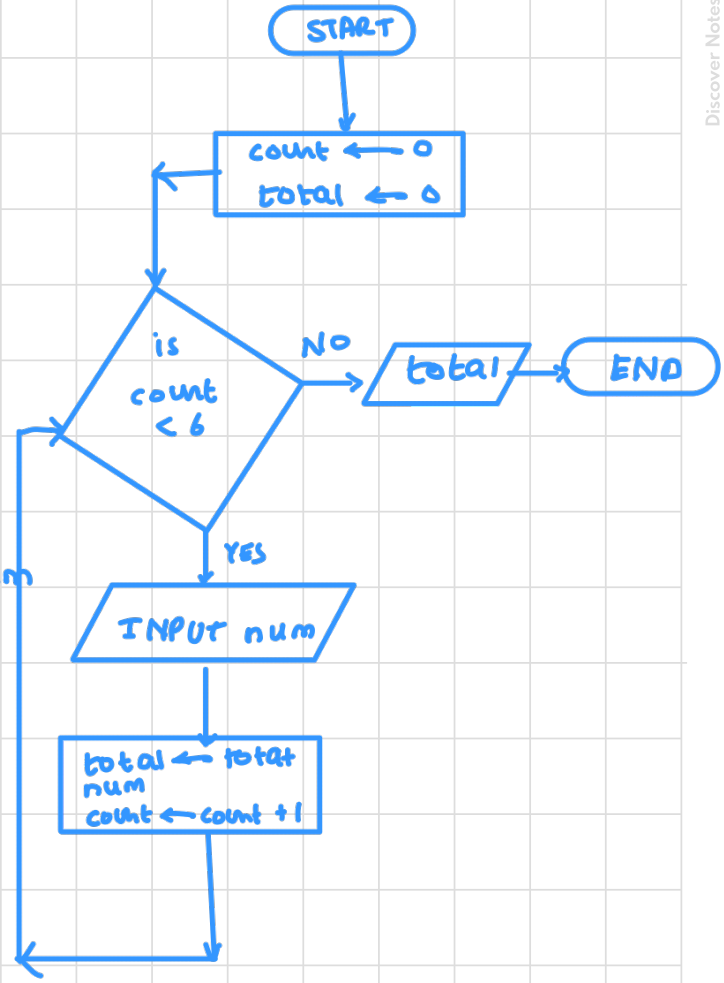
5.

```
DECLARE  current_status : CHAR
Current_statUl ← 'G'
WHILE True  DO
    IF current_statUs = 'G' THEN
            current_statUl ← 'Y'
    ELIF  current_status= 'Y' THEN
            current_status ← 'R'
    ELIF  current_status = 'R' THEN
            current_statUs ← 'G'
    ENDIF
ENDWHILE
```



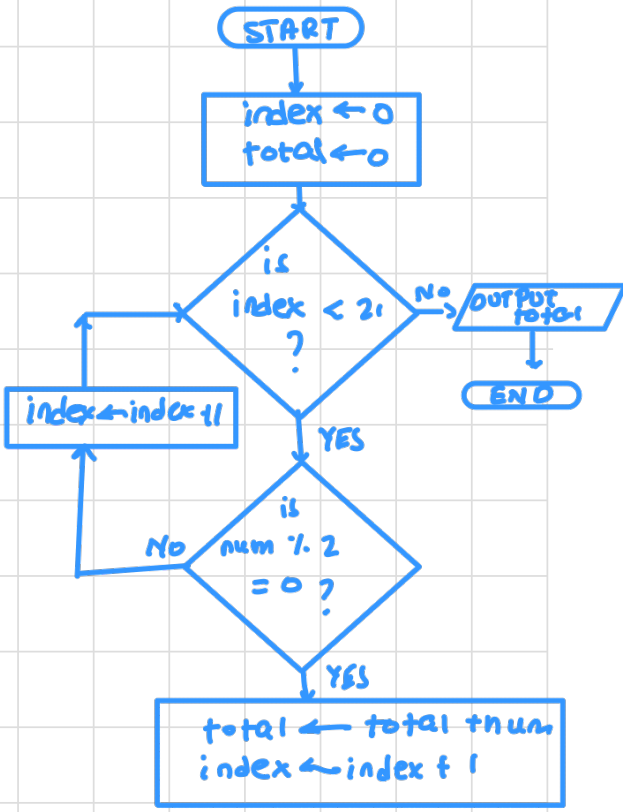
6.

```
DECLARE marks : INTEGER
DECLARE count : INTEGER
DECLARE total : INTEGER
count ← 0
total ← 0
WHILE count < 6 DO
    INPUT marks
    total ← total + num
    count ← count + 1
ENDWHILE
OUTPUT total
```



7.

```
DECLARE num : INTEGER
DECLARE index : INTEGER
DECLARE total : INTEGER
total ← 0
index ← 0
WHILE index < 21 DO
    index ← index + 1
    IF (num % 2 = 0) THEN
        total ← total + num
    ENDIF
ENDWHILE
OUTPUT total
```



8.

let n = number of pages

for index to n
    for each page
        if character = 'a' or 'e' or 'i' or 'o' or 'u'

x_1 + = 1

x_2 + = 1

...

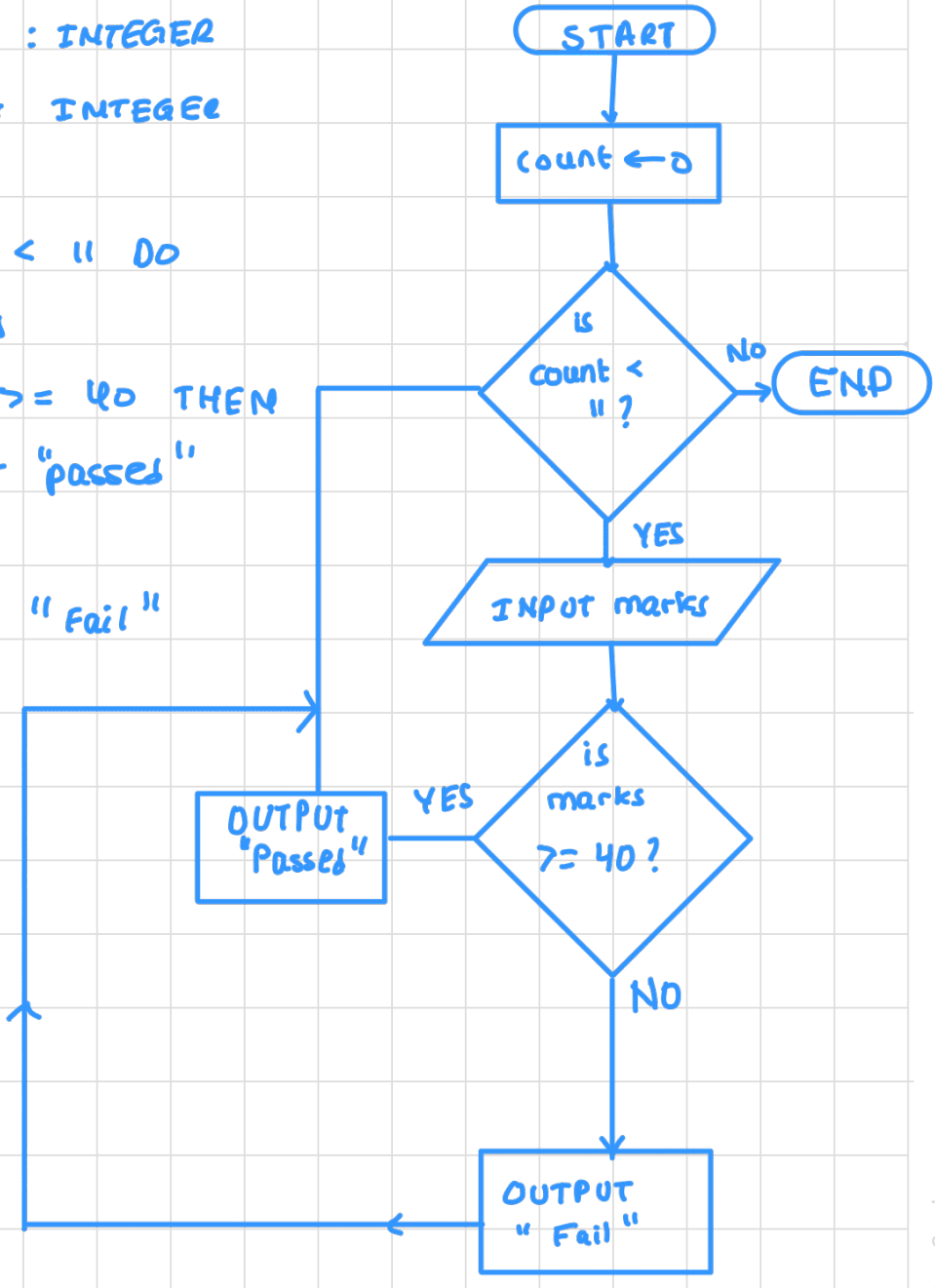
x_n + = 1

> each page

total number in book = $x_1 + x_2 + \dots + x_n$

9.

```
DECLARE marks : INTEGER
DECLARE count : INTEGER
count ← 0
WHILE count < 11 DO
    INPUT marks
    IF mark >= 40 THEN
        OUTPUT "passed"
    ELSE
        OUTPUT "Fail"
    ENDIF
ENDWHILE
```



10.

```
let n = number of pages
for index to n

    For each page
        if ch = 'a'
            xa += 1
        elif ch = 'e'
            xe += 1
        elif ch = 'i'
            xi += 1
        ...

    case a big
    if xa > xe > x ....
        output xa
    case e big
    if xe > xa > x ...
        output xe
```