   
 **Informatics Institute of Technology**

Department Of Computing

BSc (Eng) Software Engineering

**Module: Programming Principles 1**

**Module Leader:-Mr.Saman Hettiarachchi**

**☺ Date of Submission : 17th April 2020**

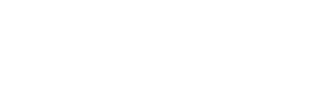
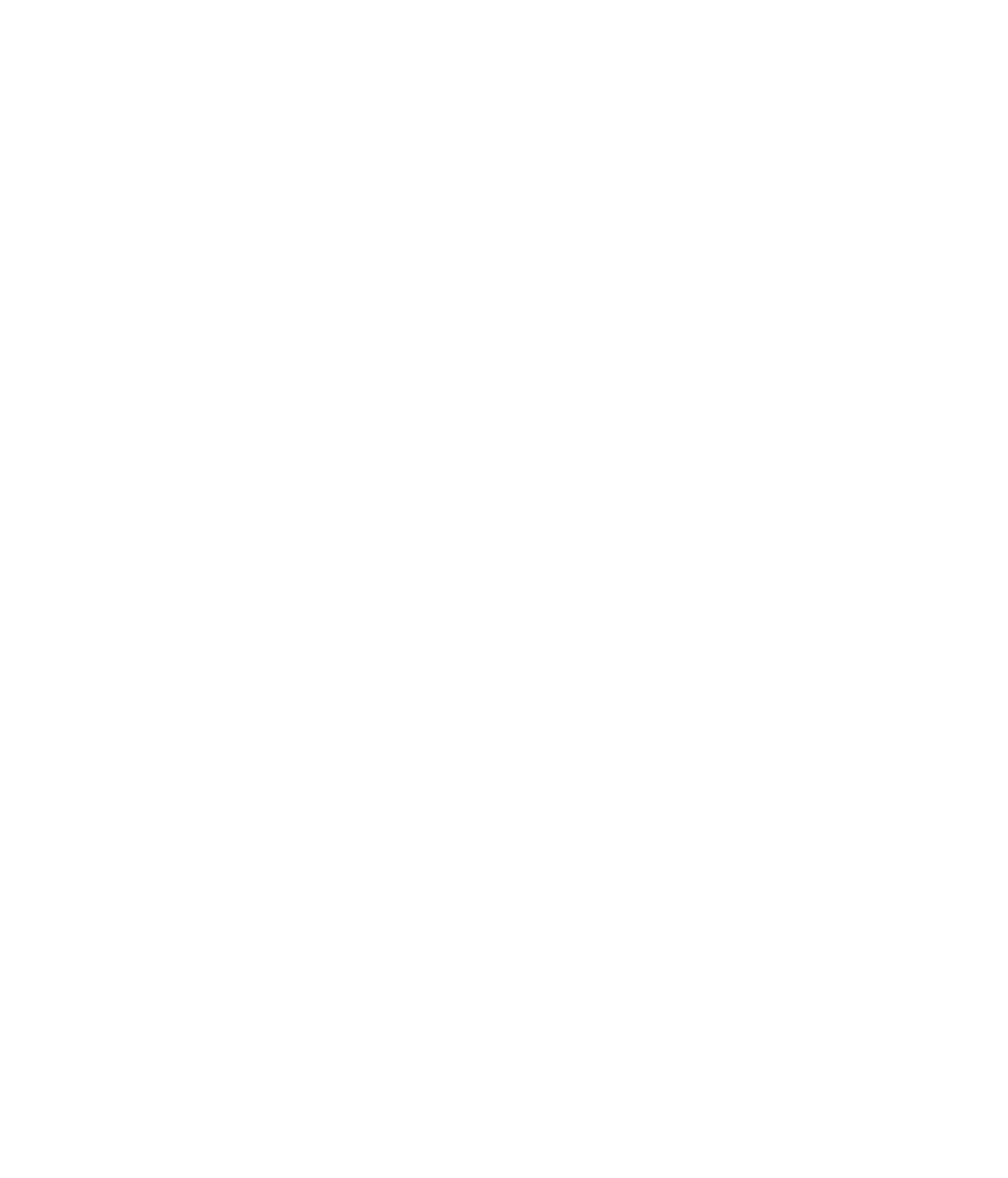
**☺ Student ID : 20191198**

**☺ Student UoW ID : W1790329**

**☺ Student First Name : Deshan**

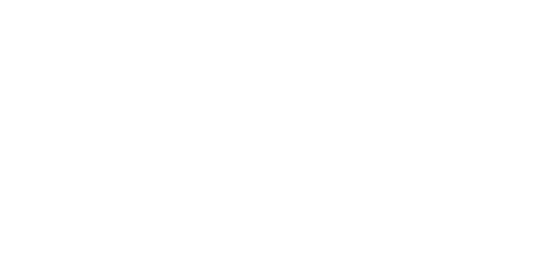
**☺ Student sur Name : Pathiranawasam**

**Staff Version ( mark() function )**



**def mark()**

**histogramm**

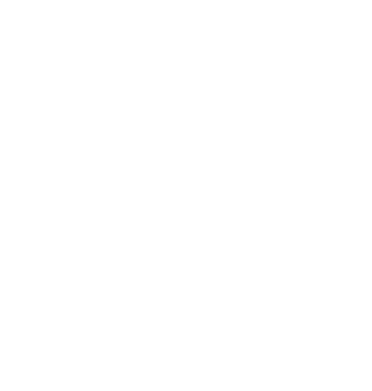


progress\_ppProgress\_count=0

trailer\_count = 0

exclude\_count = 0

retriever\_count = 0



**IF**

**markPass%20==0**

**AND**

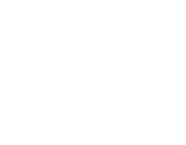
**markDefer%20==0**

**AND**

**fail\_mark%20==0**



**A**



**PRINT**

**“Range**

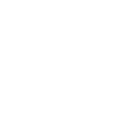
**Error”**



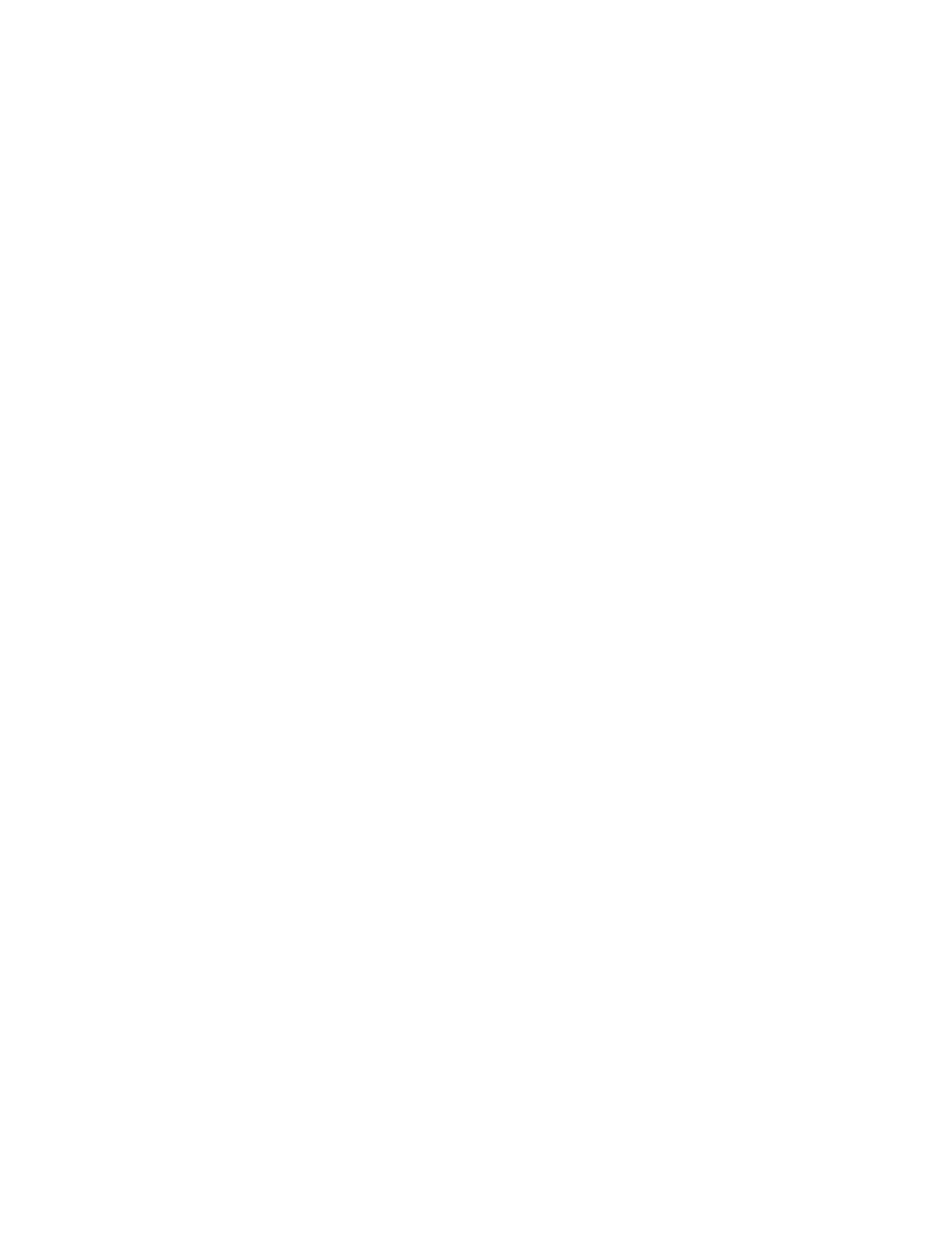
**NO**



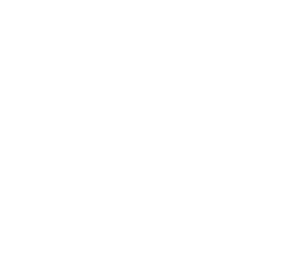
**YES**



**B**



**A**



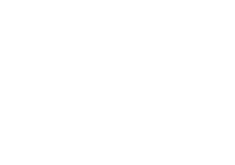
**IF**

**markPass+**

**markDefer**

**+**

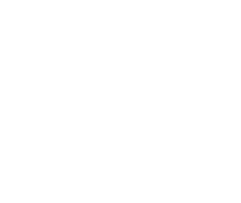
**fail\_mark==120**



**PRINT**

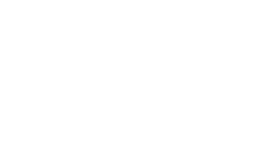
**“Total**

**Incorrect”**



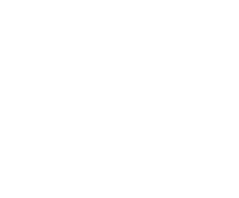
**IF**

**markPass==120**



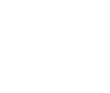
**PRINT**

**“Progress”**

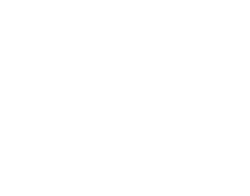


**IF**

**markPass==100**



**A**



**PRINT**

**“Progress**

**-**

**Module**

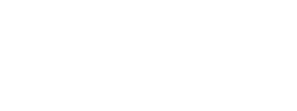
**Trailer”**



**B**

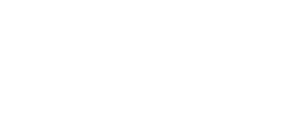


**B**



**progress\_count=**

**progress\_count+1**



**trailer\_count=**

**trailer\_count+1**



**NO**



**YES**



**YES**



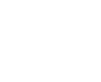
**NO**



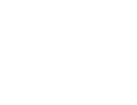
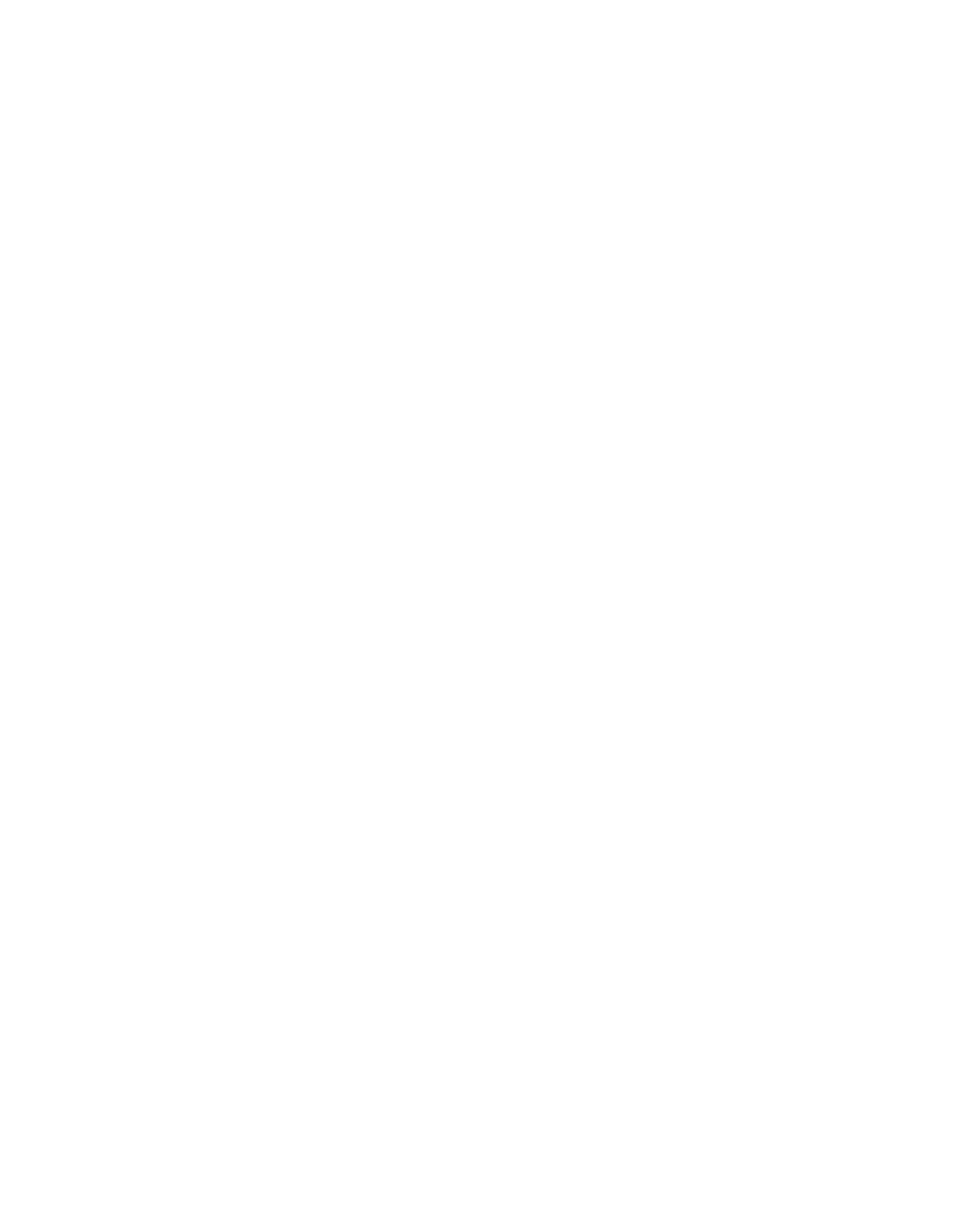
**YES**



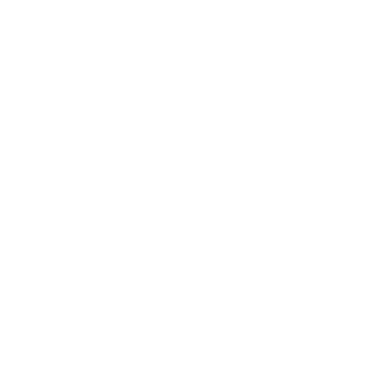
**NO**



**A**



**A**



**IF**

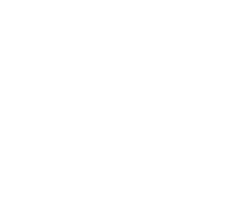
**markPass<100**

**AND**

**markPass+**

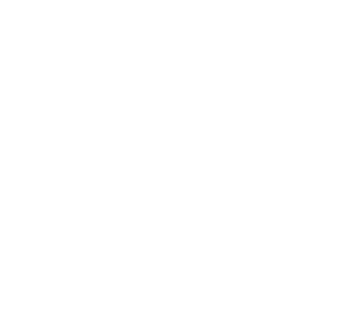
**markDefer<**

**fail\_mark**



**PRINT**

**“Exclude”**



**PRINT**

**“**

**Do not progress**

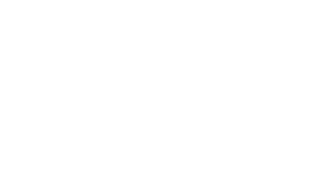
**-**

**module retriever**

**”**

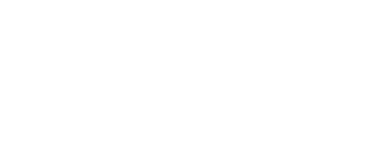


**return**



**exclude\_count =**

**exclude\_count+1**



**retriever\_count=**

**retriever\_count+1**

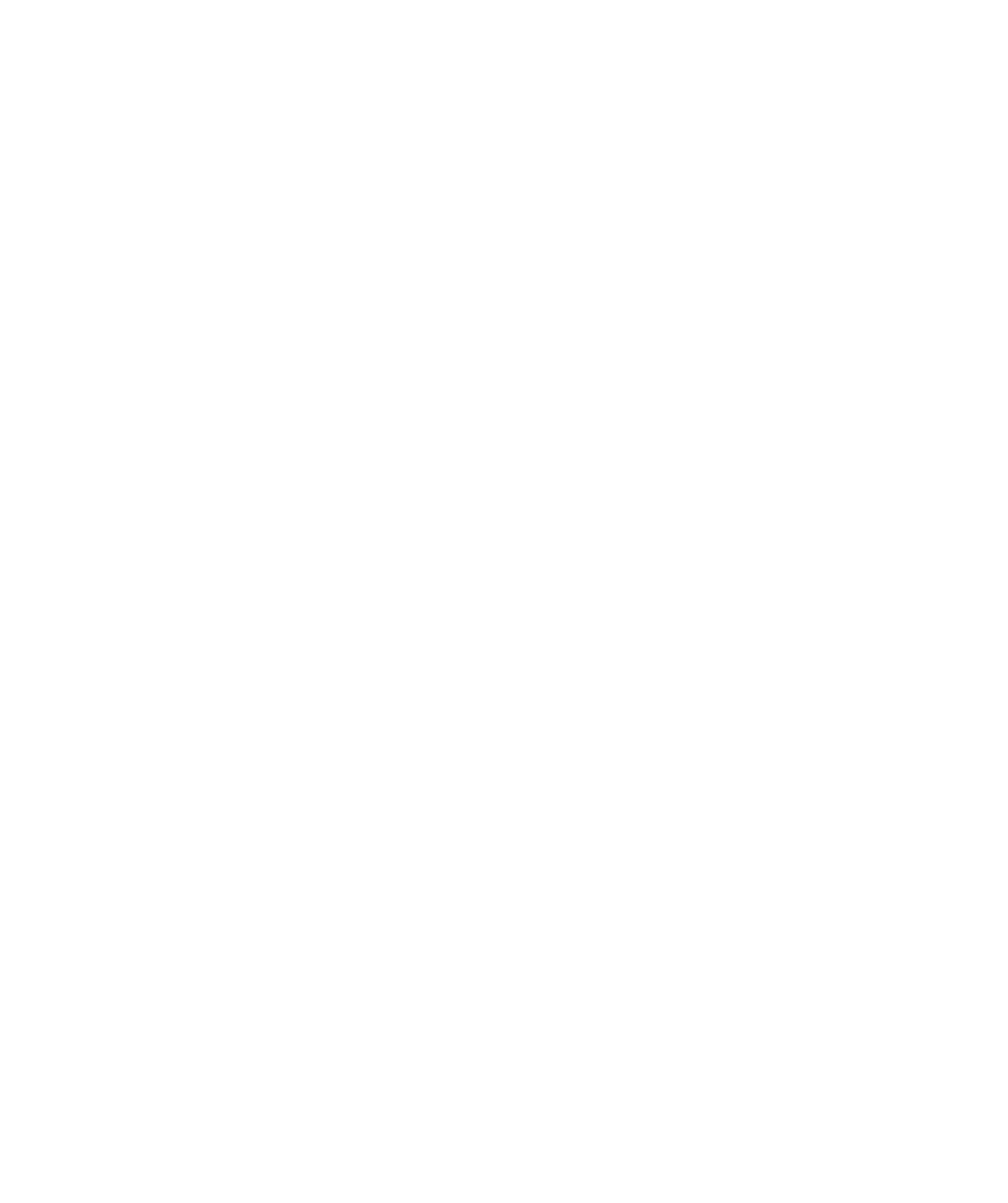


**YES**

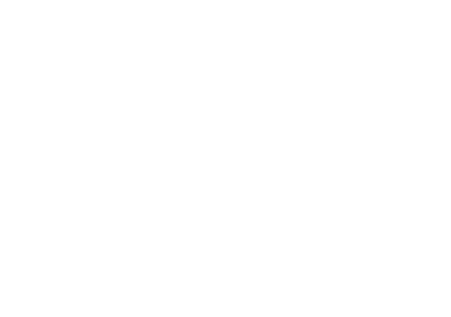


**NO**

**Staff version (main flowchart)**



**START**

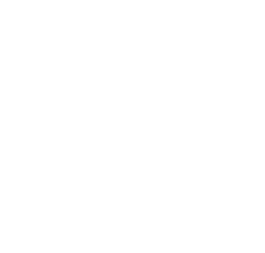


**Initializing variables**

**markPass=0**

**markDefer=0**

**fail\_mark=0**



**INPUT**

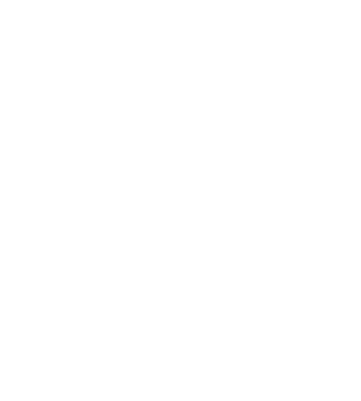
**markPass,**

**markDefer,**

**fail\_mark**



**A**



**IF**

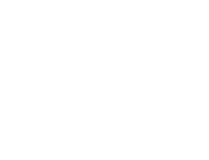
**markPass=int**

**AND**

**markDefer=int**

**AND**

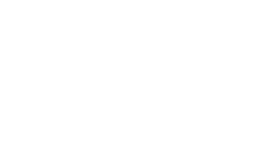
**fail\_mark=int**



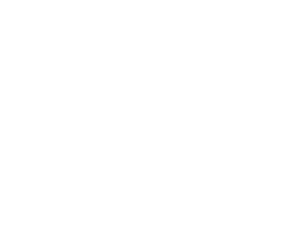
**PRINT**

**“Integer**

**Required”**

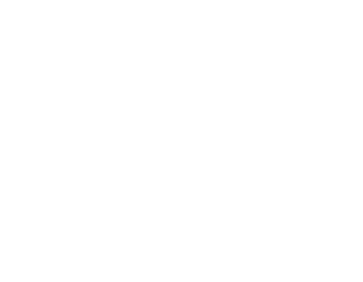


**mark()**



**INPUT**

Press any key to Enter data again,Press'q' to Quit



**WHILE**

**Stop = “q”**



**YES**



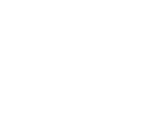
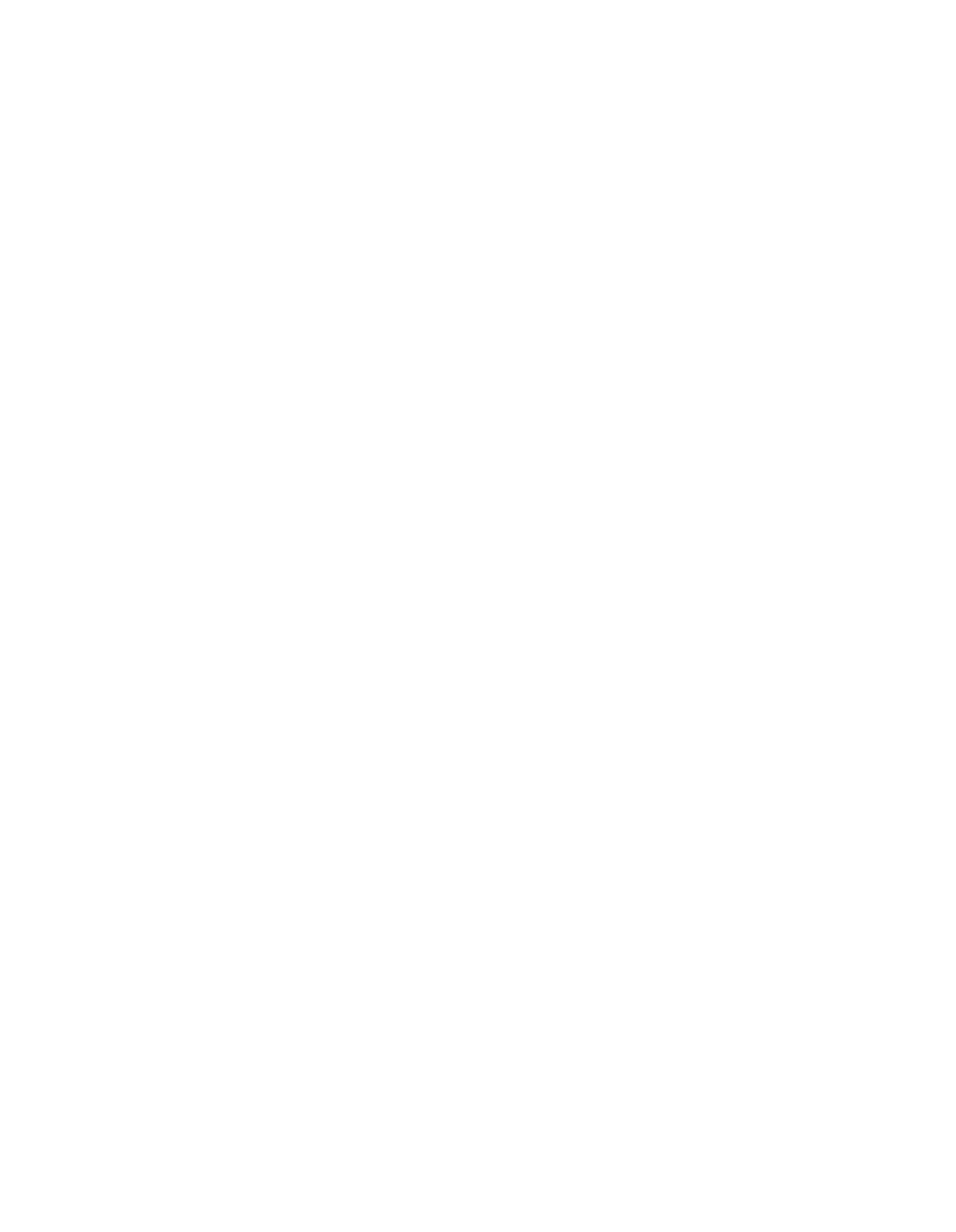
**NO**



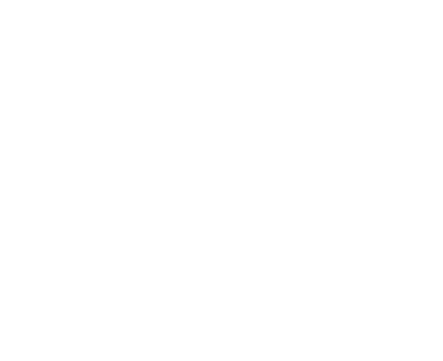
**YES**



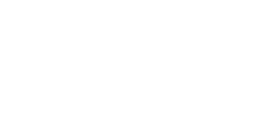
**NO**



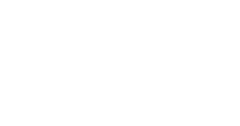
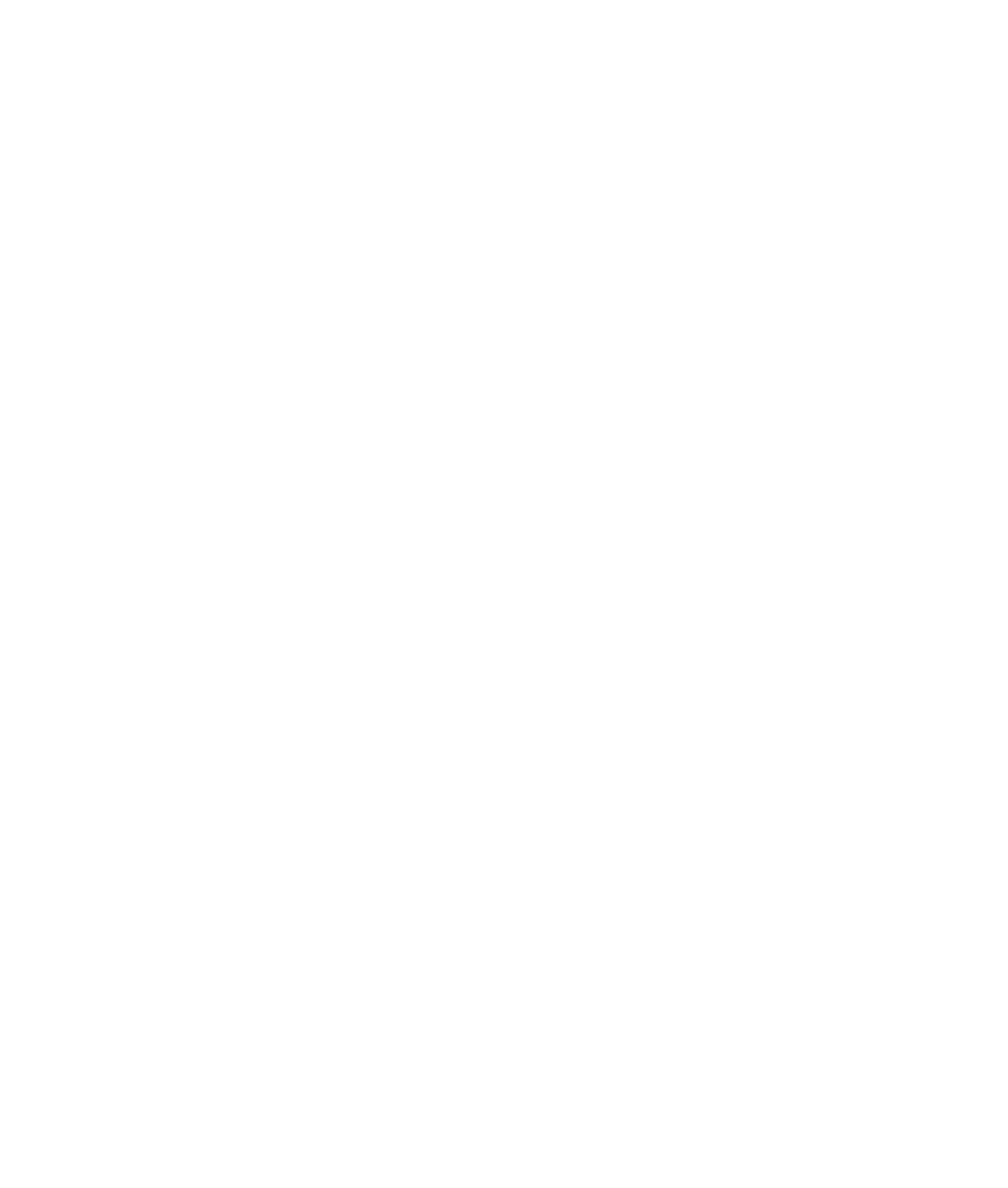
**A**



**histogram()**



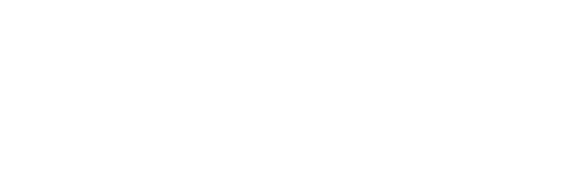
**END**



**d**

**ef**

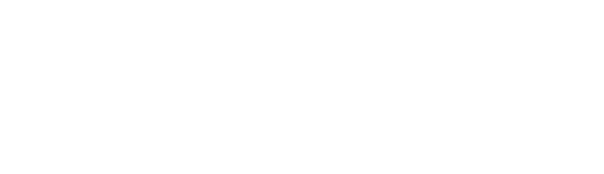
**histogram()**



**PRINT**

**"progress",progress\_c,**

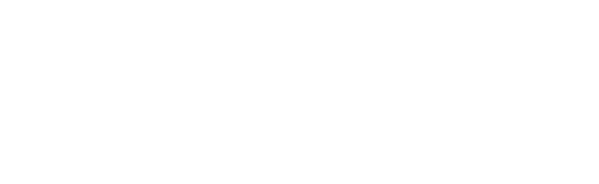
**": ",progress\_c\*"\*"**



**PRINT**

**"Trailing ",progress\_m,**

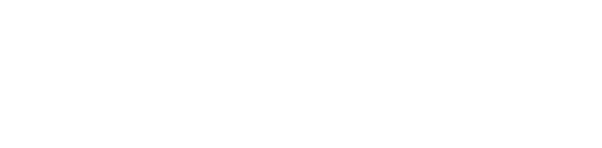
**": ",progress\_m\*"\*"**



**PRINT**

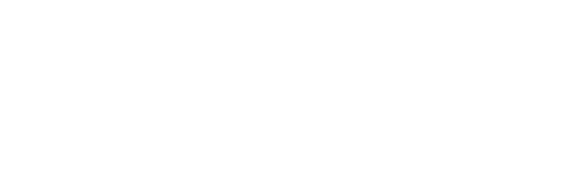
**"Retriever ",do\_not\_progress,**

**": ",do\_not\_progress\*"\*"**



**PRINT**

**"Excluded ",exclude\_c,": ",exclude\_c\*"\*"**



**PRINT**

**progress\_c+progress\_m+do\_not\_progress**

**+**

**exclude\_c,"outcomes in total"**



**return**



Staff version

function (histogram () )

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TEST PLAN FOR STAFF VERSION | | | | | | | |  | |
| Student Name: ASEL HETTIARACHCHI StudentID:2018438 | | | | | | | |  | |
| Test No. | | Test Input | | Expected Result | | Actual Result (State if not attempted) | | Pass/Fail | |
| 1 | | Pass = 120 | | ‘Progress’ is displayed | | Progress | | pass | |
| 2 | | Pass = 100 Defer = 20 | | ‘Progress – module trailer’ is displayed | | Progress-module trailer | | pass | |
| 3 | | Pass = 100  Fail = 20 | | ‘Progress – module trailer’ is displayed | | Progress-module trailer | | pass | |
| 4 | | Pass = 80  Defer = 20  Fail = 20 | | ‘Do not Progress – module retriever’ is displayed | | Do not Progress – module retriever | | pass | |
| 5 | | Pass = 60  Defer = 40  Fail = 20 | | ‘Do not Progress – module retriever’ is displayed | | Do not Progress – module retriever | | pass | |
| 6 | | Pass = 40  Defer = 40  Fail = 40 | | ‘Do not Progress – module retriever’ is displayed | | Do not Progress – module retriever | | pass | |
| 7 | | Pass = 20  Defer = 40  Fail = 60 | | ‘Do not Progress – module retriever’ is displayed | | Do not Progress – module retriever | | pass | |
| 8 | | Pass = 20  Defer = 20  Fail = 80 | | ‘Exclude’ is displayed | | Exclude | | pass | |
| 9 | | Pass = 20  Fail= 100 | | ‘Exclude’ is displayed | | Exclude | | pass | |
| 10 | | Fail = 120 | | ‘Exclude’ is displayed | | Exclude | | pass | |
|  | 11 | | Pass = 2 | | ‘Range error’ is displayed | | Range error |  | pass | |
| 12 | | Defer = 5 | | ‘Range error’ is displayed | | Range error |  | pass | |
| 13 | | Fail = 10 | | ‘Range error’ is displayed | | Range error |  | pass | |
| 14 | | Pass = 100 Defer = 40 | | ‘Total incorrect’ is displayed | | Total incorrect |  | pass | |
| 15 | | Pass = 60 Fail  = 40 | | ‘Total incorrect’ is displayed | | Total incorrect |  | pass | |
| 16 | |  | | Histogram will be displayed  Progress 1 : \*  Trailing 2 : \*\*  Retriever 4: \*\*\*\* Excluded 3: \*\*\* 10 outcomes in total. | | Progress 1 : \*  Trailing 2 : \*\*  Retriever 4 : \*\*\*\*  Excluded 3 : \*\*\* | | pass | |  |
| Checking input data type, credit range and credit total: | | | | | | | |  | |
| 17 | | Pass = a | | ‘Integers required’ displayed | | Integers required | | pass | |
| 18 | | Defer = b | | ‘Integers required’ displayed | | Integers required | | pass | |
| 19 | | Fail = c | | ‘Integers required’ displayed | | Integers required | | pass | |

Principles I

-The end-

Principles I