Summary of Weeks: 6

Week-6: 3rd October (2 Hour), 5th October (2 Hour)

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* Repetitive statements and their different kinds
  + Definite repetition
  + Indefinite repetition
  + Counter controlled repetition
  + Sentinel controlled repetition
  + Entry controlled | Exit controlled repetition
* Algorithm for the following problems
  + Maximum and second maximum marks of class knowing the total number of students
  + Max and second max marks using Sentinel controlled repetition(do-while), with sentinel value=-1
  + AP sequence of n numbers; first term=3; common difference=5
* Comparison of Algorithm construct between For and While loop

|  |  |
| --- | --- |
| For | While |
| for i=1 to n do  .  (statements)  .  end for | i=1  while (i<=n) do  .  (statements)  .  i=i+1  end while |

* Do while

|  |  |
| --- | --- |
| Algorithm construct of Do while | C construct of Do while |
| do  .  (statements)  .  while (Condition) | do  {  .  (statements)  .  }  while (Ccondition) |

* Algorithm Format (with input validation)

Algorithm: Name of the Algorithm

Input: Description of the input

Output: Description of the output

Begin

Input

Input validation

.

(Statements)

.

End

* Algorithm for the following problems
* Compute the value of π till n terms using Taylor’s series for π
* Compute first Max and second max number in a sequence of number
* using Do while
* -1 to indicate that the program needs to be stopped (-1 as sentinel value)
* Modifying the algorithm to count how many numbers were entered.
* Flow chart for finding the single maximum number using do while (-1 to exit)