**Simple Detail of the name of program**

1. Basic pattern:
   * 1. diamond.java – Diamond pattern
     2. hollowv.java – Hollow v shape number pattern
     3. patternm.java – M shape star pattern
     4. patternn.java – N shape star pattern
     5. patternw.java – W shape star pattern
     6. patternx.java – X shape star pattern
2. Function and arrays:
   * 1. abab.java – Any base to any base
     2. abtd.java – Any base to Decimal
     3. barchart.java – Bar chart of the element of array
     4. dtab.java – Decimal to any base
     5. farr.java – find the element of array
     6. invofarray.java – Inverse of the array
     7. npr.java – Permutation of the number
     8. revarr.java – Reverse of the array
     9. rotatearr.java – Rotate the array element
     10. spnar.java – Find the spanning of array(max-min)
     11. subarray.java – sub array formed by the base array
     12. firstandlast.java – first and last position of the given element in the array
     13. highandlow.java – choosing the number or gave us the lower and higher number than that.
3. 2D arrays:
   * 1. Basicarray.java - Basic 2D array print
     2. Binsearch.java – Binary searching in a sorted array
     3. Exitpoint.java -game with a rule to move so there should be exit point
     4. Matmul.java -multiplication of the matrix
     5. Ringrot.java -rotate the ring
     6. Rotate90d.java –rotation of ring by 90degree
     7. saddleprice.java –finding saddle price with given data
     8. statofwak2.java – finding the followed path
     9. transpose.java –transpose of the matrix
     10. wavetrav.java -wave traversal of the matrix
4. String
   * 1. Compression12.java – compressing the given string by two ways 1 & 2
     2. Palindrome.java – finding the palindromic substring in the given string
     3. Perofstring.java – Permutation of a string iteratively
     4. Removeprime.java – Removing the prime number from string
     5. Stringwdiff.java – String with diff of two consecutive character
     6. Toggle.java – toggle case in string
5. Recursion
   * 1. Allindex.java – print all index of character
     2. DisArrbyRec.java – Display array in recursion
     3. DisArrRev.java – Display array in reverse by recursion
     4. Factorial.java – factorial of number
     5. Firind.java – first index of char
     6. Lstindex.java – last index of char
     7. maxofArr.java – print max of array
     8. powlog.java – power logarithmic
     9. powr.java – power of number by rec
     10. printdec.java – print dec by recursion
     11. printinc.java – print inc by recursion
     12. substring.java – print substring of string
     13. toghanio.java – tower of Hanoi problemb
     14. zigzag.java – zigzag way by recursion