

**1.Write a Program(WAP) to print Alphabets A, B, C, D, E, F, G, H, using pattern programming logic.**

=> Here's a program in Java that prints Alphabets A, B, C, D, E, F, G, H, using pattern programming logic:

public class Print\_A\_To\_H {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Please row number greater than or equal 7 : ");  
 int n = sc.nextInt();  
 if (n >= 7) {  
 for (int i = 1; i <= n; i++) {  
  
 for (int j = 1; j <= n \* 8; j++) {*/\* Here define column upto n\*8 beacause "A to H" Alphabets holds 8 number of place\*/* if ((0 < j && j <= n) && ((i > 1 && j == 1) || ((j > +1 && j < n) && (i == 1)) || (j == n && 1 < i) || (i == n / 2 + 1))*/\* printing A \*/* || ((n \* 1 < j && j <= n \* 2) && ((j == n + 1) || ((i == 1 || i == n / 2 + 1 || i == n) && (j < n \* 2)) || (((i > 1 && i < n / 2 + 1) || (i > n / 2 + 1 && i < n)) && (j == n \* 2))))*/\* printing B \*/*

|| ((n \* 2 < j && j <= n \* 3) && (((i > 1 && i < n) || (j > n \* 2 + 1 && j < n \* 3)) && (i == 1 || i == n || j == n \* 2 + 1) || ((i == 2 || i == n - 1) && (j == n \* 3))))*/\* printing C \*/*

|| ((n \* 3 < j && j <= n \* 4) && ((j == n \* 3 + 2) || (j >= n \* 3 + 2 && j < n \* 4 && i == 1) || ((j == n \* 4) && (i > 1 && i < n)) || (i == n && j >= n \* 3 + 2 && j < n \* 4)))*/\* printing D \*/*

|| ((n \* 4 < j && j <= n \* 5) && ((j == n \* 4 + 1) || ((i == 1 || i == n / 2 + 1 || i == n) && (j < n \* 5))))*/\* printing E \*/*

|| ((n \* 5 < j && j <= n \* 6) && ((j == n \* 5 + 1) || ((i == 1 || i == n / 2 + 1) && (j < n \* 6))))*/\* printing F \*/*

|| ((n \* 6 < j && j <= n \* 7) && (((i > 1 && i < n) || (j > n \* 6 + 1 && j < n \* 7)) && ((i == 1 || i == n || j == n \* 6 + 1) || (i == 2 || (i <= n - 1 && i > n / 2 + 1)) && (j == n \* 7)) || (i == n / 2 + 1 && (j > n \* 6 + 2))))*/\* printing G \*/*

|| ((n \* 7 < j && j <= n \* 8) && (j == n \* 7 + 2 || j == n \* 8 || (i == n / 2 + 1 && j >= n \* 7 + 2)))) {*/\* printing H \*/*

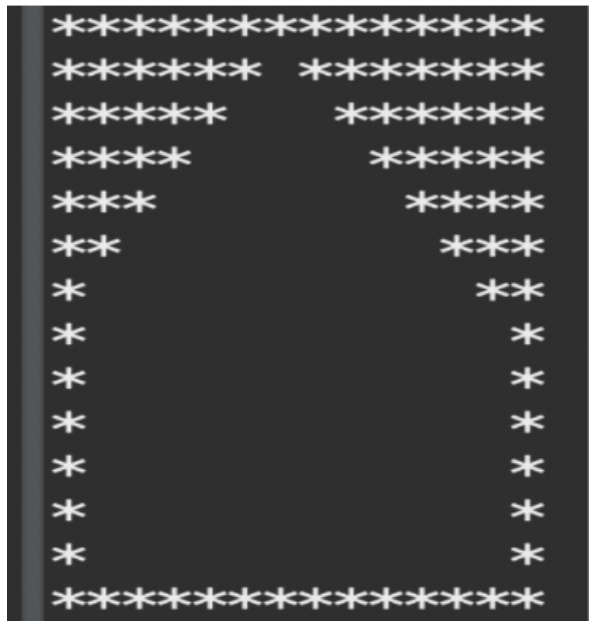
System.*out*.print("\* ");  
 } else System.*out*.print(" ");  
 }System.*out*.println();  
 }  
 } else System.*out*.println("Alphabet printing is not possible,please enter row number greater than or equal 7 !");  
 }  
}

**2. Write a program to print triangle using star pattern programming logic.**

=> Here's a program in Java that prints triangle using star pattern programming logic:

public class PrintTringle {  
 public static void main(String[] args) {  
  
 int n = 15;  
  
 for (int i = 1; i <= n; i++) {  
 for (int j = 1; j <= n; j++) {  
 if (i + j == (n - 1) / 2 + 2 || j - i == n / 2 || i == n / 2 + 1) {  
 System.*out*.print("\* ");  
 } else System.*out*.print(" ");  
 }  
 System.*out*.println();  
 }  
 }  
}

**3. WAP to print**



=> Here's a program in Java that prints the following pattern:

public class PrintPattern {  
 public static void main(String[] args) {  
 int n = 14;  
 for (int i = 1; i <= n; i++) {  
 for (int j = 1; j <= n; j++) {  
 if (i + j <= (n - 1) / 2 + 2 || j - i >= n / 2 || i == n || (i > n / 2 && (j == 1 || j == n))) {  
 System.*out*.print("\* ");  
 } else System.*out*.print(" ");  
 }  
 System.*out*.println();  
 }  
 System.*out*.println();  
 }  
}

**4. Write a program to print PWSKILLS using pattern programming logic.**

=> Here's a program in Java that prints PWSKILLS using pattern programming logic:

public class PrintPW\_SKILLS {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Please row number greater than or equal 7 : ");  
 int n = sc.nextInt();  
 if (n >= 7) {  
 for (int i = 1; i <= n; i++) {  
  
 for (int j = 1; j <= n \* 9; j++) {*/\* Here define column upto n\*9 beacause "PW SKILLS" holds 8 charecter and adding space after first name ,its become 9 \*/  
  
 /\* printing First Word "PW" \*/* if ((0 < j && j <= n) && ((j == 1) || (j < n && i == 1) || ((j == n) && (i > 1 && i < n / 2 + 1)) || (i == n / 2 + 1 && j < n))*/\* printing P \*/* || ((n \* 1 < j && j <= n \* 2) && ((j == n + 1) || (i > n / 2 && (i + j == n \* 2 + 1 || i == j - n)) || (j == n \* 2)))*/\* printing W \*/  
  
 /\* Here skipped column no 3 beacause of printing "SPACE" after printing first Word\*/  
  
 /\* printing Last Word "SKILLS" \*/* || ((n \* 3 < j && j <= n \* 4) && (((i == 1 || i == n / 2 + 1 || i == n) && (j > n \* 3 + 1 && j < n \* 4)) || ((i > 1 && i < n / 2 + 1) && (j == n \* 3 + 1)) || (i < n && i > n / 2 + 1) && (j == n \* 4) || ((i == 2 || i == n - 1) && (j == n \* 3 + 1 || j == n \* 4))))*/\* printing S \*/* || ((n \* 4 < j && j <= n \* 5) && ((((j == n \* 4 + 1) || ((i < n - 1 && j < n \* 5) && (j + i == n \* 4 + n))) || (i > n / 2 && j - i == n \* 4 - 1)) || ((i == 1 || i == n) && (j == n \* 5))))*/\* printing K \*/* || ((n \* 5 < j && j <= n \* 6) && ((i == 1 && (j > n \* 5 + 1 && j < n \* 6) || i == n && (j > n \* 5 + 1 && j < n \* 6) || (j == n \* 5 + n / 2 + 1))))*/\* printing I \*/* || ((n \* 6 < j && j <= n \* 7) && ((j == n \* 6 + 1) || (i == n && j < n \* 7)))*/\* printing L \*/* || ((n \* 7 < j && j <= n \* 8) && ((j == n \* 7 + 1) || (i == n && j < n \* 8)))*/\* printing L \*/* || ((n \* 8 < j && j <= n \* 9) && (((i == 1 || i == n / 2 + 1 || i == n) && (j > n \* 8 + 1 && j < n \* 9)) || ((i > 1 && i < n / 2 + 1) && (j == n \* 8 + 1)) || (i < n && i > n / 2 + 1) && (j == n \* 9) || ((i == 2 || i == n - 1) && (j == n \* 8 + 1 || j == n \* 9))))) {*/\* printing S \*/* System.*out*.print("\* ");  
 } else System.*out*.print(" ");  
 }  
 System.*out*.println();  
 }  
 } else System.*out*.println("printing is not possible,please enter row number greater than or equal 7 !");  
  
 }  
}

**5. Write a program to print your Full Name using pattern programming logic.**

=> Here's a program in Java that prints my Full Name(“DIPAYAN RANA”) using pattern programming logic:

public class PrintMyName {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Please row number greater than or equal 7 : ");  
 int n = sc.nextInt();  
 if (n >= 7) {  
 for (int i = 1; i <= n; i++) {  
  
 for (int j = 1; j <= n \* 12; j++) {*/\* Here define column upto n\*12 beacause my name "DIPAYAN RANA" holds 11 charecter and adding space after first name ,its become 12 \*/  
  
 /\* printing First Name "DIPAYAN" \*/* if ((0 < j && j <= n) && ((j == 1) || (j < n && i == 1) || ((j == n) && (i > 1 && i < n)) || (i == n && j < n)) */\* printing D \*/* || ((n \* 1 < j && j <= n \* 2) && ((n \* 1 < j && j <= n \* 2) && ((i == 1 && (j > n \* 1 + 1 && j < n \* 2) || i == n && (j > n \* 1 + 1 && j < n \* 2) || (j == n \* 1 + n / 2 + 1)))))*/\* printing I \*/* || ((n \* 2 < j && j <= n \* 3) && ((j == n \* 2 + 1) || (j < n \* 3 && i == 1) || ((j == n \* 3) && (i > 1 && i < n / 2 + 1)) || (i == n / 2 + 1 && j < n \* 3)))*/\* printing P \*/* || ((n \* 3 < j && j <= n \* 4) && ((i > 1 && j == n \* 3 + 1) || ((j > n \* 3 + 1 && j < n \* 4) && (i == 1)) || (j == n \* 4 && 1 < i) || (i == n / 2 + 1)))*/\* printing A \*/* || ((n \* 4 < j && j <= n \* 5) && ((j + i == n \* 4 + n + 1) || (i <= n / 2 && j - i == n \* 4)))*/\*printing Y \*/* || ((n \* 5 < j && j <= n \* 6) && ((i > 1 && j == n \* 5 + 1) || ((j > n \* 5 + 1 && j < n \* 6) && (i == 1)) || (j == n \* 6 && 1 < i) || (i == n / 2 + 1)))*/\* printing A \*/* || ((n \* 6 < j && j <= n \* 7) && ((j - i == n \* 6) || (j == n \* 6 + 1) || (j == n \* 7))) */\* printing N \*/  
  
 /\* Here skipped column no 8 beacause of printing "SPACE" after printing first name\*/  
  
 /\* printing Last Name "RANA" \*/* || ((n \* 8 < j && j <= n \* 9) && ((j == n \* 8 + 1) || (i == 1 && j < n \* 9) || (i == n / 2 + 1 && j < n \* 9) || (j == n \* 9 && (i > 1 && i <= n / 2)) || (j >= n \* 8 + n / 2 + 1 && j - i == n \* 8)))*/\* printing R \*/* || ((n \* 9 < j && j <= n \* 10) && ((n \* 9 < j && j <= n \* 10) && (i > 1 && j == n \* 9 + 1) || ((j > n \* 9 + 1 && j < n \* 10) && (i == 1)) || (j == n \* 10 && 1 < i) || (i == n / 2 + 1)))*/\* printing A \*/* || ((n \* 10 < j && j <= n \* 11) && ((j - i == n \* 10) || (j == n \* 10 + 1) || (j == n \* 11)))*/\* printing N \*/* || ((n \* 11 < j && j <= n \* 12) && ((n \* 11 < j && j <= n \* 12) && (i > 1 && j == n \* 11 + 1) || ((j > n \* 11 + 1 && j < n \* 12) && (i == 1)) || (j == n \* 12 && 1 < i) || (i == n / 2 + 1))*/\* printing A \*/*)) {  
 System.*out*.print("\* ");  
 } else System.*out*.print(" ");  
 }  
 System.*out*.println();  
 }  
 } else System.*out*.println("Name printing is not possible,please enter row number greater than or equal 7 !");  
  
 }  
}