```
* Que.1 : print all natural numbres
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting user number
       int i = 1; //initial looping variable
       //reading value of n from user
       printf("please , enter a integral number : ");
       scanf("%d",&n);
       //to iterate initial value to ennd value
       while(i <= n)</pre>
       {
               printf("%d\n",i);
               i++;
            //end of while
       }
       getch();
}
```

```
st Que.2 : print all natural numbres in reverse order
* owner : Shreya Kailas Saskar
* batch : PPA9
*/
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting user number
       int i = 1; //initial looping variable
       //reading value of n from user
       printf("please , enter a integral number : ");
scanf("%d",&n);
       //to iterate initial value to end value
       while(i <= n)</pre>
       {
              printf("%d\n",n);
              n--;
            //end of while
       getch();
}
```

```
* Que.3 : print all alphabets from a to z
* owner : Shreya Kailas Saskar
* batch : PPA9
*/
// solution :
#include<stdio.h>
#include<conio.h>
void main()
        char i = 'a'; //initial looping variable
        //to iterate a to z
       while(i <= 'z')</pre>
        {
               printf("%c\n",i);
               i++;
        } //end of while
       getch();
}
```

```
* Que.4 : print all even numbers between 1 to 100 * owner : Shreya Kailas Saskar
* batch : PPA9
*/
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int i = 1;  //initial looping variable
       //to iterate 1 to 100
       while(i <= 100)</pre>
       {
               if(i % 2 == 0)
               printf("%d\n",i);
               i++;
          //end of while
       }
       getch();
}
```

```
* Que.5 : print all odd numbers between 1 to 100
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int i = 1;  //initial looping variable
       //to iterate 1 to 100
      while(i <= 100)</pre>
       {
              if(i % 2 != 0)
             printf("%d\n",i);
              i++;
         //end of while
       getch();
}
```

```
* Que.6 : print all natural numbers sum getting n from user
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
      int n; //user number
       int i = 1;  //initial looping variable
       int sum=0; //stores sum of numbers
       //reading value of n from user
       printf("please , enter a integral number : ");
       scanf("%d",&n);
       //to iterate initial value to end value
      while(i <= n)</pre>
       {
             sum = sum + i;
             i++;
           //end of while
                     printf("%d\n",sum);
       getch();
}
```

```
/*
* Que.7 : print all even numbers sum getting n from user
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
{
       int n; //user number
       int i = 1;  //initial looping variable
       int sum = 0; //stores sum of even numbers
       //reading value of n from user
       printf("please , enter a integral number : ");
       scanf("%d",&n);
       //to iterate initial value to end value
      while(i <= n)</pre>
       {
             if(i % 2 == 0)
                    sum = sum + i;
             i++;
       } //end of while
                     printf("%d\n",sum);
       getch();
}
```

```
* Que.8 : print all odd numbers sum getting n from user
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //user number
       int i = 1;  //initial looping variable
       int sum = 0; //stores sum of odd numbers
       //reading value of n from user
       printf("please , enter a integral number : ");
       scanf("%d",&n);
       //to iterate initial value to end value
       while(i <= n)</pre>
       {
              if(i % 2 != 0)
                     sum = sum + i;
              i++;
           //end of while
                     printf("%d\n",sum);
       getch();
}
```

```
* Que.9 : print a multiplication table for any number get by user
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
{
       int n; //user number
       int i = 1;  //initial looping variable
int mult;  //stores mutiplication
       //reading value of n from user
       printf("please , enter a integral number : ");
       scanf("%d",&n);
       //to iterate initial value to end value
       while(i <= 10)
       {
              mult = n * i;
              printf("%d\n", mult);
              i++;
       }
            //end of while
       getch();
}
```

```
* Que.10: count number of digits in a given number
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //user number
       int i = 0; //initial looping variable
       //reading value of n from user
       printf("please , enter a integral number : ");
       scanf("%d",&n);
       //to iterate initial value to end value
      while(n != 0)
       {
             n = n/10;
             i++;
         //end of while
       printf("%d\n",i);
       getch();
}
```

```
* Que.11: print first and last digit of number
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
               //getting user number
      int n;
      int ld , fd ; //stores last and first digit of number
      // reading value of n from end user
       printf("please , enter a integral number: ");
      scanf("%d",&n);
      fd = n;
      // to iterate initial value to end value
      while(fd >= 10)
      {
             fd = fd/10;
      } // end of while()
      printf("first digit of a number is : %d \n",fd);
      1d = n\%10;
      printf("last digit of a number is : %d \n",ld);
      getch();
}
```

```
* Que.12: print sum of first and last digit of number
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
                  //getting user number
      int ld , fd ; //stores last and first digit of number
      // reading value of n from end user
      printf("please , enter a integral number: ");
      scanf("%d",&n);
      fd = n;
      // to iterate initial value to end value
      while(fd >= 10)
             fd = fd/10;
      } // end of while()
      printf("first digit of a number is : %d \n",fd);
      1d = n\%10;
      printf("last digit of a number is : %d \n",ld);
      printf("sum of first and last digit is : %d",fd+ld);
      getch();
}
```

```
* Que.13: swap the first and last digit of a number
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting numner from user
       int x , y; //stores last and first digit of original number
       int rmd; //stores remainder
       int temp = 0; //reverse of number
       //reading value of n from user
       printf("please , enter a integral number : ");
       scanf("%d",&n);
       //gets the last digit of original number
       x = n\%10;
       //printf("%d\n",x);
       n = n/10;
       //printf("%d\n",n);
       //reverse the number n
       while(n != 0)
       {
              rmd = n\%10;
             temp = temp * 10 + rmd;
             n = n/10;
       //printf("%d\n",temp);
       //gets the first digit of original number
       y = temp%10;
       //printf("%d\n",y);
       temp = temp/10;
       //printf("%d\n",temp);
       //temp number multiply by 10 and add last digit of original number
       temp = temp * 10 + x;
       //printf("%d\n",temp);
       //reverse the number temp
      while(temp != 0)
       {
             rmd = temp%10;
             n = n * 10 + rmd;
             temp = temp/10;
       //printf("%d\n",n);
       //n number multiply by 10 and add first digit of original number
```

```
n = n * 10 + y;
printf("after swapping first digit and last digit the number becomes : %d\n",n);
    getch();
}
```

```
* Que.14: print sum of digits of number
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n;  //getting user number
int sum = 0;  //to store sum
       int r; // to store remainder of number
       // reading value of n from end user
       printf("please , enter a integral number: ");
       scanf("%d",&n);
       // to iterate initial value to end value
       while(n != 0)
       {
              r = n\%10;
              sum = sum + r;
              n = n/10;
       } // end of while()
       printf("sum of digits of a number is : %d \n",sum);
       getch();
}
```

```
* Que.15: print product of digits of number
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
                //getting user number
       int n;
       int prdt = 1; //to store product
       int r; // to store remainder of number
       // reading value of n from end user
       printf("please , enter a integral number: ");
       scanf("%d",&n);
       // to iterate initial value to end value
      while(n != 0)
       {
             r = n\%10;
             prdt = prdt * r;
             n = n/10;
       } // end of while()
       printf("product of digits of a number is : %d \n",prdt);
       getch();
}
```

```
* Que.16: print reverse of number
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
                   //getting user number
       int n;
       int rvs; //to store reverse number of original number
       int rmd; // to store remainder of number
       // reading value of n from end user
       printf("please , enter a integral number: ");
       scanf("%d",&n);
       // to iterate initial value to end value
       for(rvs = 0; n!= 0; n/=10)
       {
             rmd = n%10;
             rvs = rvs * 10 + rmd;
       } // end of for()
       printf("reverse of a number is : %d \n",rvs);
       getch();
}
```

```
* Que.17: show the number is palindrome or not
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n;
                  //getting user number
       int rvs = 0; //to store reverse number of original number
       int rmd; // to store remainder of number
       int temp; //to store temporary value
       // reading value of n from end user
       printf("please , enter a integral number: ");
       scanf("%d",&n);
       temp = n;
       // to iterate initial value to end value
      while(temp != 0)
              rmd = temp%10;
             rvs = rvs * 10 + rmd;
           temp = temp/10;
       } // end of while()
       printf("reverse of a number is : %d \n",rvs);
       if(rvs == n)
             printf("its a palindrome number");
       else
             printf("it is not a palindrome number");
       getch();
}
```

```
* Que.18: print frequency of each digit
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
                   //getting user number
       int rmd1 , rmd2 ; // to store remainder of number
       int temp , temp1; //to store temporary value
       int cnt; //for counting
       // reading value of n from end user
       printf("please , enter a integral number: ");
       scanf("%d",&n);
       temp1 = n;
      while(n != 0)
              cnt = 0;
             temp = temp1;
             rmd1 = n%10;
             while(temp > 0)
                    rmd2 = temp%10;
                    if(rmd1 == rmd2)
                    {
                           cnt++;
                    }
                    temp = temp/10;
              } // end of while(temp > 0)
              printf("frequency of %d = %d\n",rmd1,cnt);
             n = n/10;
       } // end of while(n != 0)
       getch();
}
```

```
* Que.19: enter a number and print it in words
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n;
                   //getting user number
       int rvs = 0; //to store reverse number of original number
       int rmd; // to store remainder of number
       int temp; //to store temporary value
       // reading value of n from end user
       printf("please , enter a integral number: ");
       scanf("%d",&n);
       temp = n;
       // to iterate initial value to end value also we find here reverse of a number
       while(temp != 0)
       {
              rmd = temp%10;
              rvs = rvs * 10 + rmd;
           temp = temp/10;
       } // end of while()
       while(rvs != 0)
       {
              rmd = rvs%10; // getting last digit of a number
              switch(rmd)
              {
              case 1 : printf("one\t");break;
           case 2 : printf("two\t");break;
           case 3 : printf("three\t");break;
              case 4 : printf("four\t");break;
              case 5 : printf("five\t");break;
              case 6 : printf("six\t");break;
              case 7 : printf("seven\t");break;
        case 8 : printf("eight\t");break;
              case 9 : printf("nine\t");break;
case 0 : printf("zero\t");break;
              default :printf("invalid number\t");
              } // end of switch()
       rvs = rvs/10;
                          //removing last digit of a number
       getch();
}
```

```
/*
 * Que.20: print all ASCII values
 * owner : Shreya Kailas Saskar
 * batch : PPA9
 */

// solution :

#include<stdio.h>
#include<conio.h>

void main()
{
    int ch; //to print every character of ASCII value
    for(ch = 0 ; ch < 256 ; ch++)
        {
             printf("%c = %d\n",ch,ch);
        }
        getch();
}</pre>
```

```
* Que.21: print power of number
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //user value
       int pwr = 1; // to stores power of number
       int exp; //exponant number
       printf("please , enter a integral number\n");
       scanf("%d",&n);
       printf("please , enter a exponant number\n");
       scanf("%d",&exp);
       for( ; exp != 0 ; exp--)
             pwr = pwr * n;
       }
       printf("power of number is %d",pwr);
       getch();
}
```

```
* Que.22: print all factors of a number
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting from user side
       int i; //looping variable
       //reading value of n from user
       printf("please , enter a integral number : ");
       scanf("%d",&n);
       // iterates 1 to n for finding divisors of n
       for(i = 1 ; i <= n ; i++)</pre>
       {
              if(n\%i == 0)
                     printf("%d\n",i);
              }
       }
       getch();
}
```

```
* Que.23: print factorial of a number
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting from user side
       int i; //looping variable
       //reading value of n from user
       printf("please , enter a integral number : ");
       scanf("%d",&n);
       // iterates 1 to n for finding factorial of n
       for(i = n-1 ; i != 0 ; i--)
              n = n * i;
       }
       printf("factorial is %d",n);
       getch();
}
```

```
* Que.24: print GCD of two numbers
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n1 , n2; //getting from user side
       int i = 1; //looping variable
       int gcd; //stores the GCD
       //reading value of n from user
       printf("please , enter two integral number : ");
       scanf("%d%d", &n1 , &n2);
       // iterates for finding GCD of n1 and n2
       while(n1 >= i \&\& n2 >= i)
       {
            if(n1%i == 0 && n2%i == 0)
                      gcd = i;
               i++;
       printf("gcd is %d",gcd);
       getch();
}
```

```
* Que.25: print LCM of two numbers
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n1 , n2; //getting from user side
       int i = 1; //looping variable
       int gcd; //stores the GCD
int lcm; //stores the LCM
       //reading value of n from user
       printf("please , enter two integral number : ");
       scanf("%d%d", &n1 , &n2);
       // iterates for finding GCD of n1 and n2
       while(n1 >= i && n2 >= i)
       {
            if(n1%i == 0 && n2%i == 0)
                       gcd = i;
               i++;
       }
       // finding lcm
       lcm = (n1*n2)/gcd;
       printf("lcm is %d",lcm);
       getch();
}
```

```
* Que.26: check given number is prime or not
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting number from user
       int i = 1; //looping variable
       int cnt = 0; //counting the numbers which divisibale by user number
       printf("please , enter a number\n");
       scanf("%d",&n);
       while(i <= n)</pre>
       {
              if(n\%i == 0)
                     cnt++;
           i++;
       }
       if(cnt == 2)
              printf("%d is prime number",n);
       else
              printf("%d is not a prime number",n);
       getch();
}
```

```
* Que.27: print all prime numbers upto n(user value)
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting number from user
       int i,j; //looping variable
       int cnt = 0;
       printf("please , enter a number\n");
       scanf("%d",&n);
       // it iterates 1 to n
       for(j = 1 ; j<= n ; j++)</pre>
              cnt = 0;
              // it iterates 1 to j and check j is divisible by how many numbers
              for(i = 1; i <= j; i++)</pre>
                     if(j%i == 0)
                     {
                            cnt++;
                     }
              if(cnt == 2) //prime numbers have only two divisor factors
                     printf("%d\n",j);
              }
       }
       getch();
}
```

```
* Que.28: print sum of all prime numbers upto n(user value)
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting number from user
       int i,j; //looping variable
       int cnt = 0; //counts the variable which are prime
       int sum = 0; // stores the sum of prime numbers
       printf("please , enter a number\n");
       scanf("%d",&n);
       // it iterates 1 to n
       for(j = 1 ; j <= n ; j++)
       {
              cnt = 0;
              // it iterates 1 to j and check j is divisible by how many numbers
             for(i = 1; i <= j; i++)
                     if(j%i == 0)
                           cnt++; //if j divisible by any number cnt variable count the
numbers
                     }
             if(cnt == 2) //prime numbers have only two divisor factors
                     sum = sum + j; //here only prime numbers are add into sum variable
       printf("%d",sum);
       getch();
}
```

```
* Que.29: all prime factors of n(user value)
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting number from user
       int i,j; //looping variable
       int cnt = 0; //counts the variable which are prime
       int sum = 0; // stores the sum of prime numbers
       printf("please , enter a number\n");
       scanf("%d",&n);
       // it iterates 1 to n
       for(j = 1 ; j<= n ; j++)</pre>
       {
              // it iterates 1 to j and check j is divisible by how many numbers
              for(i = 1; i <= j; i++)</pre>
                     if(j%i == 0)
                            cnt++; //if j divisible by any number cnt variable count the
numbers
                     }
              if(cnt == 2) //prime numbers have only two divisor factors
                     if(n\%j == 0) //here n is completely divisible by j prime number then
j is a prime factor of n
                     {
                            printf("%d\n",j);
                     }
              }
       }
       getch();
}
```

```
* Que.30: check the number is armstrong or not
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting number from user
       int i , j; //looping variable
       int temp; //temporary variable
       int rmd; // to store remainder
       int sum = 0; //to stores the sum
       int pwr = 1; //stores the power of digit
       //reading value of n from user
       printf("please , enter a integral number : ");
       scanf("%d",&n);
       temp = n;
       //to iterate number of digits in a given number(n)
       for(i = 0 ; temp != 0 ; i++)
       {
              temp = temp/10;
       j = i;
       // to iterate gettings armstrong number
       for(temp = n ; temp != 0 ; temp = temp/10)
              rmd = temp%10;
              pwr = 1;
              for(i = j ; i != 0 ; i--)
                     pwr = pwr * rmd;
               }
        sum = sum + pwr;
       }
       if(n == sum)
              printf("%d is a armstong number", sum);
       else
              printf("%d is not armstrong number",n);
       getch();
}
```

```
* Que.31: print 1 to n armstrong numbers
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting number from user
       int i , j , k; //looping variable
       int temp; //temporary variable
       int rmd; // to store remainder
       int sum = 0; //to stores the sum
       int pwr = 1; //stores the power of digit
       //reading value of n from user
       printf("please , enter a integral number : ");
       scanf("%d",&n);
       for(k = 1 ; k <= n ; k++)
       temp = k;
       sum = 0;
       //to iterate number of digits in a given number(n)
       for(i = 0; temp != 0; i++)
       {
             temp = temp/10;
       j = i;
       // to iterate gettings armstrong number
       for(temp = k ; temp != 0 ; temp = temp/10)
       {
              rmd = temp%10;
             pwr = 1;
              for(i = j; i!= 0; i--)
                     pwr = pwr * rmd;
               }
        sum = sum + pwr;
       }
       if(k == sum)
             printf("%d\n",k);
}
       getch();
}
```

```
* Que.32: check the number is perfect or not
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting number from user
       int i; //looping variable
       int sum = 0; //to stores sum of numbers which divisible by n(user value)
       //reading value of n from user
       printf("please , enter a integral number : ");
       scanf("%d",&n);
       // to iterate initial value upto end value
       for(i = 1; i < n; i++)</pre>
       {
              if(n\%i == 0) // n is completely divisible by any number
                     sum = sum + i;
              }
       if(n == sum)
              printf("%d a pefect number",sum);
       else
              printf("%d is not a perfect number",n);
       getch();
}
```

```
* Que.33: print the perfect number 1 to n
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting number from user
       int i,j; //looping variable
       int sum = 0; //to stores sum of numbers which divisible by n(user value)
       //reading value of n from user
       printf("please , enter a integral number : ");
       scanf("%d",&n);
       for(j = 1 ; j <= n ; j++)</pre>
              sum = 0;
       // to iterate initial value upto end value
       for(i = 1; i < j; i++)</pre>
              if(j%i == 0) // n is completely divisible by any number
                     sum = sum + i;
              }
       if(j == sum)
              printf("%d\n",sum);
       }
       getch();
}
```

```
* Que.34: check number is strong number or not
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting number from user side
       int i,j; //loopig variable
       int rmd; //stores remainder
       int fact; //stores factorial of a digit
       int sum = 0; //stores the sum of all factorial
       int num; //stores value of n
       //reading value of n from user
       printf("please , enter a numerical number : ");
       scanf("%d",&n);
       num = n;
       //logic for seperate last digit of a number
       for(i = 1; n != 0; i++)
              rmd = n%10;
             fact = 1;
              //logic for getting factorial of a digit
             for(j = 1 ; j <= rmd ; j++)</pre>
              {
                     fact = fact * j;
             sum = sum + fact; //it adds the factorial of each digit in a given number
             n = n/10;
       }
       //checks the given number is strong or not
       if(num == sum)
             printf("%d is a strong number", sum);
       else
             printf("%d is not a strong number",num);
       getch();
}
```

```
* Que.35: print all strong numbers between 1 to n
* owner : Shreya Kailas Saskar
* batch : PPA9
// solution :
#include<stdio.h>
#include<conio.h>
void main()
       int n; //getting number from user side
       int i,j,k; //loopig variable
       int rmd; //stores remainder
       int fact; //stores factorial of a digit
       int sum = 0; //stores the sum of all factorial
       int num; //stores value for temporary
       //reading value of n from user
       printf("please , enter a numerical number : ");
       scanf("%d",&n);
       // logic for print 1 to n strong numbers
       for(k = 1 ; k <= n ; k++)
              sum = 0;
             num = k;
       //logic for seperate last digit of a number
       for(i = 1 ; num != 0 ; i++)
       {
              rmd = num%10;
             fact = 1;
              //logic for getting factorial of a digit
             for(j = 1 ; j <= rmd ; j++)
              {
                    fact = fact * j;
              sum = sum + fact; //it adds the factorial of each digit in a given number
             num = num/10;
       }
       //checks the given number is strong or not
       if(sum == k)
       {
             printf("%d\n",sum);
       }
       }
       getch();
}
```