Experiment 3: Conditional Statements

3.5. According to the gregorian calendar, it was Monday on the date 01/01/01. If any year is input through the keyboard write a program to find out what is the day on 1st January of this year.

Ans-:

```
        #include <stdio.h>

int isLeap(int y) {
   if (y % 400 == 0) return 1;
   if (y % 100 == 0) return 0;
   if (y % 4 == 0)   return 1;
   return 0;
}

int main() {
   printf("Name - Aryan kamboj\nSAP ID - 590025526\ncourse - BCA\nBatch - 6");
    printf("\n----------------------\n");
   int year, days = 0;

   printf("Enter year: ");
   scanf("%d", &year);

   // Count days from year 1 to (year-1)
   for (int i = 1; i < year; i++) {
      days += 365 + isLeap(i);
   }

   int dayIndex = days % 7;

   // 0 = Monday (since 01/01/01 was Monday)
   switch (dayIndex) {
      case 0: printf("1st January %d is Monday\n", year); break;
      case 1: printf("1st January %d is Tuesday\n", year); break;
      case 2: printf("1st January %d is Wednesday\n", year); break;
      case 3: printf("1st January %d is Thursday\n", year); break;
      case 4: printf("1st January %d is Friday\n", year); break;
      case 5: printf("1st January %d is Saturday\n", year); break;
      case 6: printf("1st January %d is Sunday\n", year); break;
   }
```

```
    return 0;
}
```

Output :