WEEK - 3

REC-CIS

MAHALAKSHMI S 2024-CSE M2

- Week-03-Decision Making and Branching - if, if...e...
- Assessment-03-Decision Making and Branching - if, ...
- Lab-04-Decision Making and Branching - if...else i...
- Week-04-Decision Making and Looping - while, do...wh...
- Assessment-04-Decision Making and Branching - if.....
- Week-05-Nested Loops - while and for, Jumps in Loops
- Assessment-05-Decision Making and Looping - while ...

Week-03-Decision Making and Branching - if, if...else and nested if...else, if...else if and switch...case

Week-03-01-Practice Session-Coding	✓ Done
Week-03-02-Practice Session-Coding	✓ Done
Week-03-03-Practice Session-Coding	✓ Done
Array Applications	✓ Done
Problem solving with Strings	✓ Done
String manipulation functions	✓ Done

Practice session 1

```c
#include<stdio.h>
int main() {
    int a, b;
    scanf("%d %d", &a, &b);
    if (a % 10 == b % 10) {
        printf("true");
    }
    else {
        printf("false");
    }
    return 0;
}
```

	Input	Expected	Got	
✓	25 53	false	false	✓
✓	27 77	true	true	✓

Passed all tests! ✓

```c
#include<stdio.h>
int main() {
    int n;
    scanf("%d", &n);
    if(n % 2 != 0) {
        printf("Weird");
    }
    else if((n >= 2) && (n <= 5) && ((n % 2) == 0)){
        printf("Not Weird");
    }
    else if((n >= 6) && (n <=20) && ((n % 2) == 0)){
        printf("Weird");
    }
    else if((n > 20) && (n % 2 == 0)) {
        printf("Not Weird");
    }
    return 0;
}
```

	Input	Expected	Got	
✓	3	Weird	Weird	✓
✓	24	Not Weird	Not Weird	✓

Passed all tests! ✓

```c
#include<stdio.h>
int main() {
    int a, b, c;
    scanf("%d %d %d", &a, &b, &c);
    if (a*a + b*b == c*c || b*b + c*c == a*a || a*a + c*c == b*b) {
        printf("yes");
    }
    else {
        printf ("no");
    }
    return 0;
}
```

	Input	Expected	Got	
✓	3 5 4	yes	yes	✓
✓	5 8 2	no	no	✓

Passed all tests! ✓

Practice Session 2

```c
#include<stdio.h>
int main() {
    int n;
    scanf("%d", &n);
    if(n>10){
        printf("The number of sides is not supported.");
    }
    switch (n) {
        case 3:
        printf("Triangle");
        break;
        case 4:
        printf("Quadilateral");
        break;
        case 5:
        printf("Pentagon");
        break;
        case 6:
        printf("Hexagon");
        break;
        case 7:
        printf("Heptagon");
        break;
        case 8:
        printf("Octagon");
        break;
        case 9:
        printf("Nonagon");
        break;
        case 10:
        printf("Decagon");
        break;
    }
    return 0;
}
```

	Input	Expected	Got	
✓	3	Triangle	Triangle	✓
✓	7	Heptagon	Heptagon	✓
✓	11	The number of sides is not supported.	The number of sides is not supported.	✓

Passed all tests! ✓

```c
#include<stdio.h>
int main() {
    int year, ans;
    scanf("%d", &year);
    ans = year % 12;
    switch(ans){
        case 8:
        printf("Dragon");
        break;
        case 9:
        printf("Snake");
        break;
        case 10:
        printf("Horse");
        break;
        case 11:
        printf("Sheep");
        break;
        case 0:
        printf("Monkey");
        break;
        case 1:
        printf("Rooster");
        break;
        case 2:
        printf("Dog");
        break;
        case 3:
        printf("Pig");
        break;
        case 4:
        printf("Rat");
        break;
        case 5:
        printf("Ox");
        break;
        case 6:
        printf("Tiger");
        break;
        case 7:
        printf("Hare");
        break;
    }
```

```
    return 0;
}
```

	Input	Expected	Got	
✓	2004	Monkey	Monkey	✓
✓	2010	Tiger	Tiger	✓

Passed all tests! ✓

```c
#include<stdio.h>
int main() {
    char ch; int a;
    scanf("%c %d", &ch, &a);
    int r = a + ch;
    if(r % 2 == 0) {
        printf("The square is black.");
    }
    else {
        printf("The square is white.");
    }
    return 0;
}
```

	Input	Expected	Got	
✓	a 1	The square is black.	The square is black.	✓
✓	d 5	The square is white.	The square is white.	✓

Passed all tests! ✓

Practice Session 3

```c
#include<stdio.h>
int main(){
    int d, m, y;
    scanf("%d %d %d", &d, &m, &y);
    switch(m-1){
        case 11:
        d = d + 30;
        case 10:
        d = d + 31;
        case 9:
        d = d + 30;
        case 8:
        d = d + 31;
        case 7:
        d = d + 31;
        case 6:
        d = d + 30;
        case 5:
        d = d + 31;
        case 4:
        d = d + 30;
        case 3:
        d = d + 31;
        case 2:
        if(((y % 4 == 0) && (y % 100 != 0)) || (y % 400 == 0)){
            d = d + 29;
        }
        else{
            d = d + 28;
        }
        case 1:
        d = d + 31;
    }
    printf("%d", d);
    return 0;
}
```

	Input	Expected	Got	
✓	18 6 2020	170	170	✓

Passed all tests! ✓

```c
#include<stdio.h>
int main(){
    char shape; int l, b;
    scanf("%c\n%d\n%d", &shape, &l, &b);
    switch(shape){
        case 'R':
        printf("%d", (l * b));
        break;
        case 'S':
        printf("%d", (l * b /2));
        break;
        case 'T':
        printf("%d", (l * b));
        break;
        default:
        printf("0");
        break;
    }
    return 0;
}
```

	Input	Expected	Got	
✓	T 10 20	200	200	✓
✓	S 30 40	600	600	✓
✓	B 2 11	0	0	✓
✓	R 10 30	300	300	✓
✓	S 40 50	1000	1000	✓

Passed all tests! ✓

```c
#include<stdio.h>
int main(){
    int n,day,days;
    scanf("%d",&n);
    day=n%296;
    days=day%10;
    switch(days+1){
        case 1:
        printf("Sunday");
        break;
        case 2:
        printf("Monday");
        break;
        case 3:
        printf("Tuesday");
        break;
        case 4:
        printf("Wednesday");
        break;
        case 5:
        printf("Thursday");
        break;
        case 6:
        printf("Friday");
        break;
        case 7:
        printf("Saturday");
        break;
        case 8:
        printf("Kryptonday");
        break;
        case 9:
        printf("Coluday");
        break;
        case 10:
        printf("Daxamday");
        break;
    }
    return 0;
}
```

	Input	Expected	Got	
✓	7	Kryptonday	Kryptonday	✓
✓	1	Monday	Monday	✓

Passed all tests! ✓