JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Year & Semester - B.Tech I year (I Semester)

Subject - Computer Programming Lab ,Code – 1FY3-24

Presented by - Ms. Abhilasha

Department - Computer Science (First Year)

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Ms. Abhilasha

VISION OF INSTITUTE

To become a renowned centre of outcome based learning, and work towards academic, professional, cultural and social enrichment of the lives of individuals and communities.

MISSION OF INSTITUTE

❖**Focus on evaluation of learning outcomes and motivate students to inculcate research aptitude by project based learning.**

❖**Identify, based on informed perception of Indian, regional and global needs, the areas of focus and provide platform to gain knowledge and solutions.**

❖**Offer opportunities for interaction between academia and industry.**

❖**Develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions .**

Computer Programming Lab :Course Outcomes

Upon successful completion of this course students will be able to:

CO1: Identify and analyze the input /output operation, decision making statements and looping.

CO2: Analyze and implement arrays, functions, pointers and dynamic memory allocation.

CO3: Apply structure, union and data handling through files in 'C' Programming Language.

Syllabus of Computer Programming Lab

RAJASTHAN TECHNICAL UNIVERSITY, KOTA

I & II Semester
Common to all branches of UG Engineering & Technology

1FY3-24/ 2FY3-24: Computer Programming Lab

Credit: 1.5
Max. Marks: 75 (IA:45, ETE:30)
0L+0T+3P

1. To learn about the C Library, Preprocessor directive, Input-output statement.
2. Programs to learn data type, variables, If-else statement
3. Programs to understand nested if-else statement and switch statement
4. Programs to learn iterative statements like while and do-while loops
5. Programs to understand for loops for iterative statements
6. Programs to learn about array and string operations
7. Programs to understand sorting and searching using array
8. Programs to learn functions and recursive functions
9. Programs to understand Structure and Union operation
10. Programs to learn Pointer operations
11. Programs to understand File handling operations
12. Programs to input data through Command line argument

C switch Statement

The switch statement allows us to execute one code block among many alternatives.
You can do the same thing with the if...else..if ladder. However, the syntax of
the switch statement is much easier to read and write.
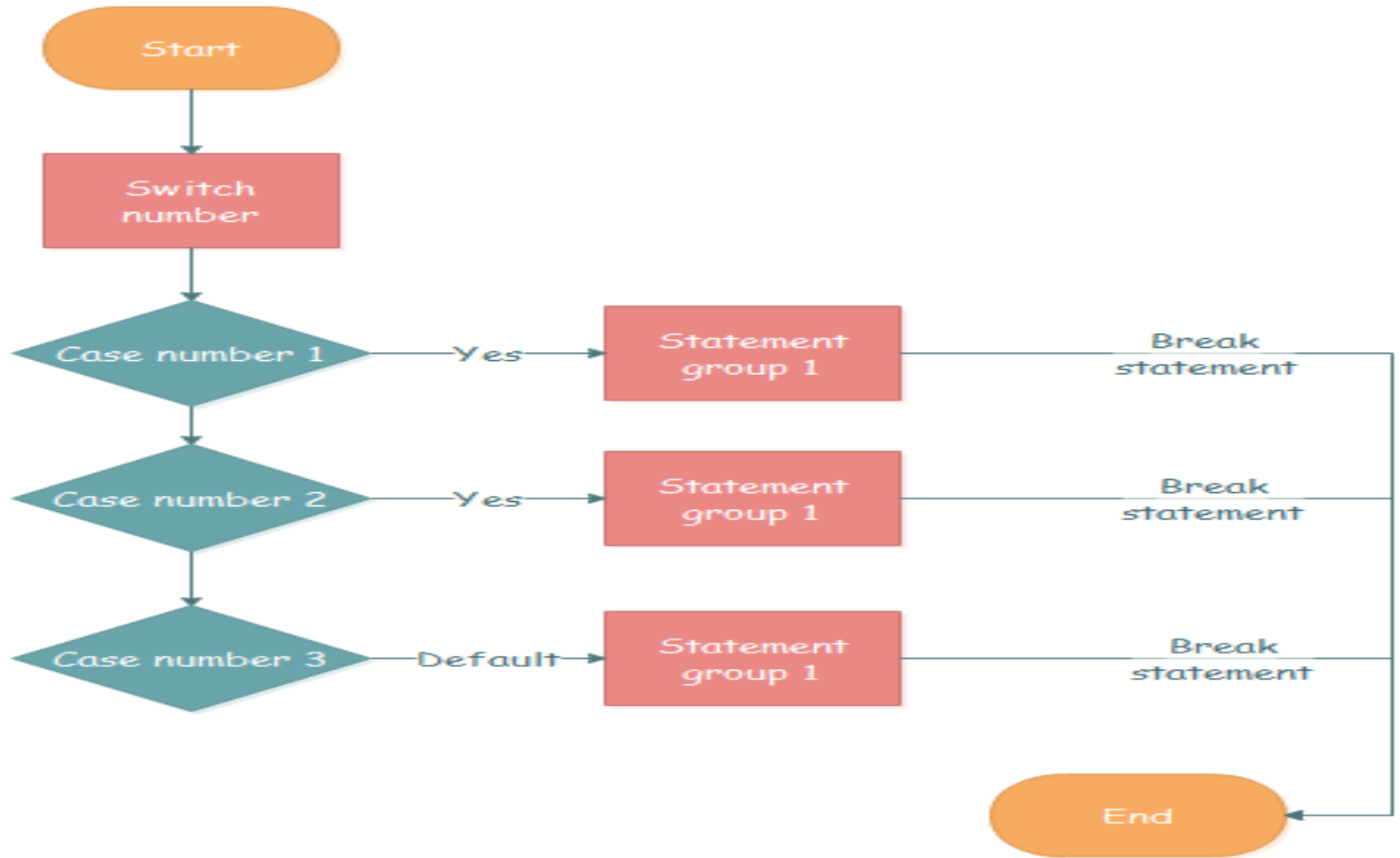
Syntax of switch...case

```
switch (expression)
 {
case constant1:
// statements
break;
case constant2:
// statements
 break;
 .
 .
 .
default:
// default statements
 }
```

How does the switch statement work?

The **expression** is evaluated once and compared with the values of each **case** label.

- If there is a match, the corresponding statements after the matching label are executed.

- For example, if the value of the **expression** is equal to constant2, statements after **case** constant2: are executed until **break** is encountered.

- If there is no match, the **default** statements are executed.

- If we do not use **break**, all statements after the matching label are executed.

- By the way, the **default** clause inside the switch statement is optional.

Representation of Switch Case by Flow chart

Example of Switch Case

//Write a program by Switch Case word is Vowel or not.

```c
#include <stdio.h>
#include<conio.h>
void main()
{
char ch; clrscr();
printf("Enter a character\n");
scanf("%c", &ch);
switch(ch)
{
case 'a':
case 'A':
case 'e':
case 'E':
case 'i':
case 'I':
case 'o':
case 'O':
case 'u':
case 'U':
printf("%c is a vowel.\n", ch);
break;
default:
printf("%c is not a vowel.\n", ch);
}
getch();
}
```

OUTPUT-
Enter a character
A
A is a vowel

Assignment

1.Write C program to print day of week name using switch case.

2. Write a C program to input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer, calculate percentage and grade according to given conditions:
percentage >= 90% : Grade A
 percentage >= 80% : Grade B
 percentage >= 70% : Grade C
percentage >= 60% : Grade D
 percentage >= 40% : Grade E
 percentage < 40% : Grade F

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