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Conditional Statements / A Selection Structure using switch

Session 6

Conditional Statement

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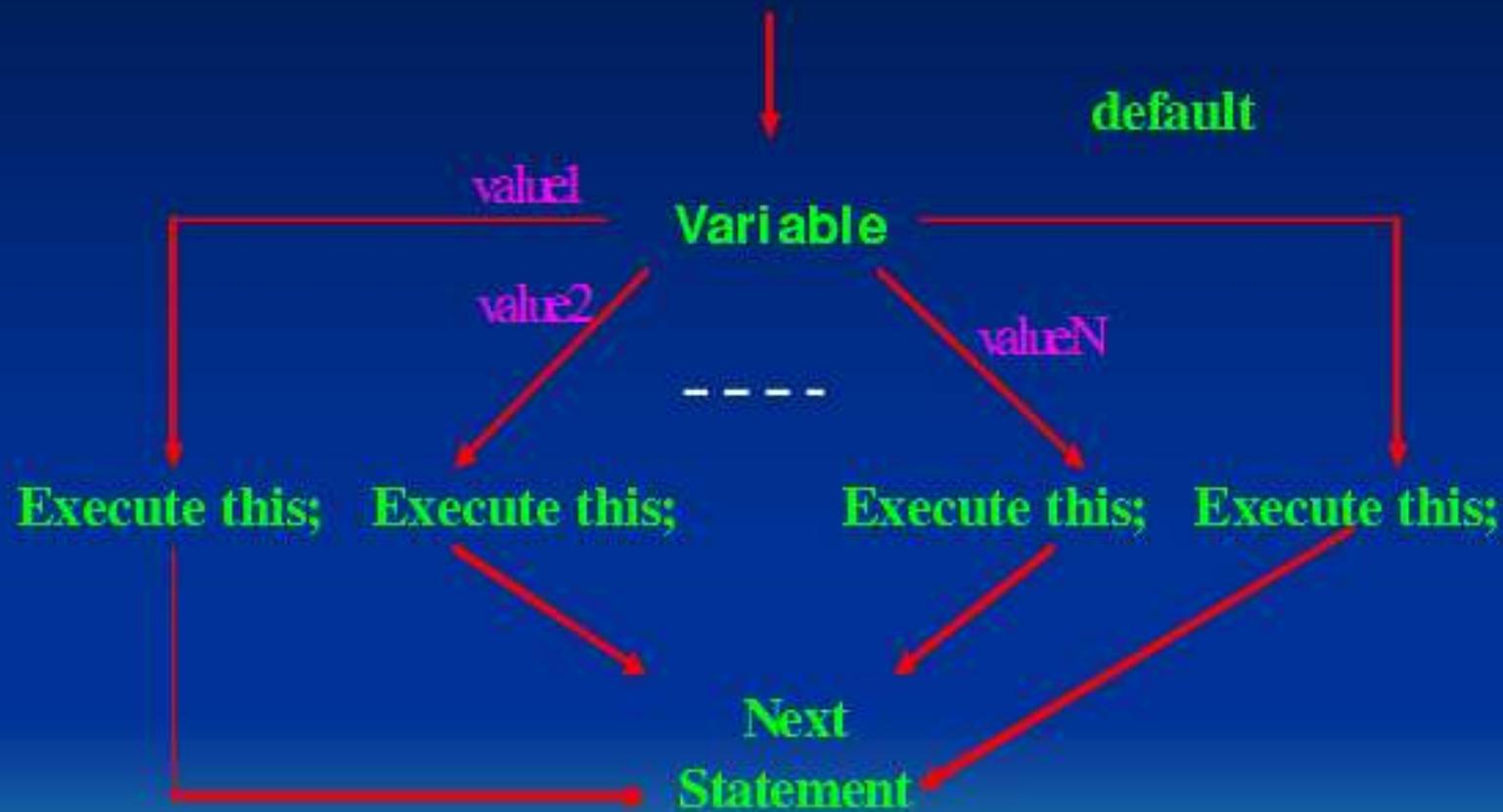
```
switch(var)
{
case 1:    //if var=1 this case executes
           stmt;
           break;
case 2:    //if var=2 this case executes
           stmt;
           break;
default:   //if var is something else this will execute
           stmt;
}
```

switch Statements

```
switch (variable-name)
{
    case value1:
        Execute this;
        break;
    case value2:
        Execute this;
        break;
        |
        |
    case valueN:
        Execute this;
        break;
    default:
        Execute this;
}
```



switch Statement Flow Chart



switch Statement Rules

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- ❖ The switch-expression must yield a value of char or int type and must always be enclosed in parentheses.
The value1, ..., and valueN must have the same data type as the value of the switch-expression. The resulting statements in the case statement are executed when the value in the case statement matches the value of the switch-expression. (The case statements are executed in sequential order.)

switch Statement Rules

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- ❖ The keyword `break` is optional, but it should be used at the end of each case in order to terminate the remainder of the switchstatement.
- ❖ If the `break` statement is not present, the next case statement will be executed.

switch Statement Rules

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- ❖ The default case, which is optional, can be used to perform actions when none of the specified cases is true.
- ❖ The order of the cases (including the default case) does not matter. However, it is a good programming style to follow the logical sequence of the cases and place the default case at the end.



- ❖ Do not forget to use a break statement when one is needed. For example, the following code always displays Wrong number of years regardless of what num is. Suppose the num is 15. The statement `rate = 8.50` is executed, then the statement `rate = 9.0`, and finally the statement, `printf("Wrong number of years")`.



```
switch (num) {  
    case 7: rate = 7.25;  
    case 15: rate = 8.50;  
    case 30: rate = 9.0;  
    default: printf("Wrong number of years");  
}
```

Exercise 5.1

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1. `/* Program menentukan nama hari berdasarkan inputan */`
2. `#include <stdio.h>`
3. `#include <conio.h>`
4. `void main()`
5. `{ clrscr();`
6. `int hari;`
7. `puts("Menentukan nama hari\n");`
8. `puts("1 = Senin 2 = Selasa 3 = Rabu 4 = Kamis");`
9. `puts("5 = Jum'at 6 = Sabtu 7 = Minggu");`
10. `printf("\nMasukan kode hari(1-7) : ");scanf("%d", &hari);`

Exercise 5.2

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```
11. switch(hari)
12. { case 1 : puts("Hari Senin"); /* kemungkinan pertama */
13.     break;
14.   case 2 : puts("Hari Selasa"); /* kemungkinan kedua */
15.     break;
16.   case 3 : puts("Hari Rabu"); /* kemungkinan ketiga */
17.     break;
18.   case 4 : puts("Hari Kamis"); /* kemungkinan keempat */
19.     break;
20.   case 5 : puts("Hari Jum'at"); /* kemungkinan kelima */
21.     break;
22.   case 6 : puts("Hari Sabtu"); /* kemungkinan keenam */
23.     break;
24.   case 7 : puts("Hari Minggu"); /* kemungkinan ketujuh */
25.     break;
26.   default : puts("Kode hari yang Anda masukan SALAH");
27. } getch();
28. }
```



- ❖ Write a program with using switch to display the word of number from 1 to 10.
- ❖ 1 = One
- ❖ 2 = Two
- ❖ 3 = Three
- ❖ etc