

CSE 113 Structured Programming Language

# Control Statement: switch & Nested loop

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# Find the output

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```
#include <stdio.h>

int main () {

    for( ; ; ) {
        printf("hello \n");
    }

    return 0;
}
```

# Find the output

```
#include <stdio.h>

int main () {
    int i=0, x=0;

    for(i=1; i<8; i++) {
        if(i%2==1)
            x+=i;

        else
            x--;
        printf("%d ",x);
    }
    printf("\nx=%d",x);

    return 0;
}
```



# Find the output

```
#include <stdio.h>

int main () {
    int i=0, x=0;

    for(i=1; i<8; i++) {
        if(i%2==1){
            x+=i;
            continue;
        }
        else
            x--;
        printf("%d ",x);
    }
    printf("\nx=%d",x);

    return 0;
}
```



# Switch...case

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The switch statement allows to execute one code block among many alternatives

# Syntax of switch...case

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```
switch (expression)
{
    case constant1:
        // statements
        break;

    case constant2:
        // statements
        break;

    .
    .
    .
    default:
        // default statements
}
```



# switch...case: example

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```
int main(){
    int n;
    scanf("%d", &n);
    switch(n)
    {
        case 1:
            printf("One\n");
            break;

        case 2:
            printf("Two");
            break;

        default:
            printf("value not matched");
    }
    return 0;
}
```

# switch...case: example

```
int main(){
    char ch;
    scanf("%c", &ch);
    switch(ch)
    {
        case 'r':
        case 'R':
            printf("RED");
            break;

        case 'g':
        case 'G':
            printf("GREEN");
            break;

        case 'b':
        case 'B':
            printf("BLUE");
            break;

        default:
            printf("value not matched");
    }
    return 0;
}
```



# Nested Loop

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```
for(i=1; i<=3; i++) {  
    for(x=1; x<=5; x++){  
        // statements  
    }  
}
```

# Nested Loop

---

```
int main () {  
    int i=0, x=0;  
  
    for(i=1; i<=3; i++) {  
        for(x=1; x<=5; x++){  
            printf("%d ",x);  
        }  
        printf("\n");  
    }  
    printf("\ni=%d, x=%d",i,x);  
  
    return 0;  
}
```