

Rules of "Coding Standards"

* Use one single "TAB" (and not 3-4 spaces) for indentation.

* Indentation means, whatever is logically 'inside' should be shown like that. This means the 'bodies' of for, while, if, else, function, switch should be indented using ONE tab.

* Indent when you are typing the code and not after writing the code.

* Rules for spacing:

Give one space after comma in variable lists or arguments lists.

e.g `int i, j, k;`

OR `printf("%d%d", a, b);`

Give one space before and after every binary operator: e.g. `i = j + k;`

* Everything which has a { and } associated with it is called a block.

The opening and closing brackets of any "block" must be matched with the first character of the block keyword (i.e. f of for, i o f if, e of else, etc.)

* Do not give a space before ";" of a for loop

* Do not give a space after '(' and ')'

`/* */` is a C comment, `//` is a C++ comment. Use `/* */` only.

All variable declarations should be in the beginning of the code, do not declare variables anywhere in the code (Unless you are sure you want to do it).

Wrong:

```
int i , j , k;
```

Correct:

```
int i, j, k;
```

Comment:

Space only after the comma in argument, variable list, not before it.

Wrong:

```
for(i = 0 ; i < 10 ; i++)
```

Correct:

```
for(i = 0; i < 10; i++)
```

Comment:

Space only after the ';' in argument, variable list, not before it.

Wrong:

```
for ( i = 0; i < 10; i++)
```

Correct:

```
for(i = 0; i < 10; i++)
```

Comment:

No space after for, and after (or before)

Wrong:

```
int main() {
    int i, j, k;
    for(i = 0; i < 10; i++)
        printf("hi\n");
}
```

correct:

```
int main() {
    int i, j, k;
    for(i = 0; i < 10; i++)
        printf("hi\n");
}
```

Comment:

Both "for" and "int i,..." are "inside main", so only 1 level of indentation.

Wrong:

```
int main()
{
    int i, j, k;
    printf("hi\n");
}
```

Correct:

```
int main() {
    int i, j, k;
    printf("hi\n");
}
```

Comment:

Bracket } must match the "i" of int. The wrong code has double indentation.

Wrong:

```
scanf("%d%d",&i,&j);
```

Correct:

```
scanf("%d%d", &i, &j);
```

Comment:

one space needed after every argument in an argument/variable list.

Wrong:

```
scanf("%d %d", &i, &j);
```

Correct:

```
scanf("%d%d", &i, &j);
```

Comment:

There should be no space in %d%d of scanf.

Wrong:

```
printf("\n hi there");
```

Correct:

```
printf("hi there\n");
```

Comment:

Newline after printf. Reasons a) Prompt comes back properly b) It flushes the output faster to screen.

Wrong:

```
int main() {  
    int i, j, k;  
    return 0;  
}
```

Correct:

```
int main() {  
    int i, j, k;  
    return 0;  
}
```

Comment:

return is "inside" main(), so use one indentation level.

Wrong:

```
void main() {  
}
```

Correct:

```
int main() {  
}
```

Comment:

main() should return int always.

Wrong:

```
if(i > 0) {  
    printf("hi\n");  
}  
else {  
    printf("bye\n");  
}
```

correct:

```
if(i > 0) {  
    printf("hi\n");  
}  
else {  
    printf("bye\n");  
}
```

```
}
```

Comment:

Always indent what is "inside" if or else.

Wrong:

```
switch(x) {  
  
    case 'a':  
  
        printf("hi\n");  
  
        break;  
  
    case 'b':  
  
        scanf("%d", &i);  
  
        break;  
  
}
```

correct:

```
switch(x) {  
  
    case 'a':  
  
        printf("hi\n");  
  
        break;  
  
    case 'b':  
  
        scanf("%d", &i);  
  
        break;  
  
}
```

Comment:

Indent both 'case' and the code of case statement in a switch statement.

Some other important things (not related to formatting, indentation)

- * Main is always "int main"
- * Write a \n at the end of printf
- * Do not have any \n or space in scanf
- * Do not use Windows

- * Begin a "block" with { on the same line as the block-word (for, if, while, etc)
- * Remove all warnings from your code.