Common Mistakes

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Common Mistakes

This part also includes tips on syntax.

- 1) Do not forget to put ; at the end of the lines
- 2) Do not put ; unnecessarily. Example:

```
if(stuff);
    {stuff}
```

In this case, if statement has absolutely no effect.

- 3) == has an evil sibling who is =

Do not confuse them. = is for assignment, == is for comparison. Example: while(a=1) and while(a==1) are different things.

Common Mistakes

- 4) Do not confuse ' ' with " "

  ' ' is for a single character, " " is for multiple characters. You should not use ' ' instead of " ". Although sometimes you can use " " instead ' ', try avoiding this.
- 5) Inside for loop's parenthesis, you use exactly 2 ; (not ,)

Common Mistakes

- 6) if, while, for conditions should be enclosed into one big parenthesis. Example:

  WRONG: if (a==b)&&(c<5)

  CORRECT: if ((a==b)&&(c<5))
- 7) Use correct amount of tabs or spaces to make your code readable. If your code is messed up, nobody (including yourself and TAs) can help you. First make your code readable then ask for help (or analyze it yoursef). (Also you may get lower points from asignments just for this)

Common Mistakes

- 8) Close any parenthesis (){} or quotation " "" just after you open it. Then write the stuff inside. Example:

  if ()

  {

  }

  After you write the part above exactly, you should proceed writing stuff into parenthesis.

  Note: Visual Studio may automatically help you closing paranthesis or quotations.

Common Mistakes

- 9) Be careful about when your parenthesis are closed.

```
int x = 0, i, j, n = 5, m = 7;
for (i = 0; i < n; i++)
{
    for (j = 0; j < m; j++)
    {
        x = x + 1;
        cout << x << endl;
    }
}
```

```
int x = 0, i, j, n = 5, m = 7;
for (i = 0; i < n; i++)
{
    for (j = 0; j < m; j++)
    {
        x = x + 1;
    }
    cout << x << endl;
}
```

```
int x = 0, i, j, n = 5, m = 7;
for (i = 0; i < n; i++)
{
    for (j = 0; j < m; j++)
    {
        x = x + 1;
    }
}
cout << x << endl;
```

These 3 code pieces give very different outputs.

Common Mistakes

- 10) In order to be able to check the correctness of your statements, learn how those statements are calculated well. (How type conversions are done, what is the precedence etc. For example you may end up with integer division when you wanted to use float division if you are not careful about type conversions)
- 11) Use extra parenthesis to be safe (and not worry about operator predecende much)

Common Mistakes

- 12) Check your array indexes. In most cases, just checking if indexes stay in the correct interval solves most of the problems about array indexes. Do some math if you need to.