Reading data: read marker, write marker, get, getline, ignore

- **Read with >>**
  Automatically skipping white spaces: ' ', '\t', '\n'
  Reading integer, float, char, string

  What values are in ch, v1, and f1? where is the reading marker?

  Example:

```
char ch, ch1, ch2;
int    v1;
float f1;
string st1, st2;

cin >> v1 >> ch >> f1;
```

  Data

```
(1) 25   \t   A    16.9\n
(2) 25A16.9\n
(3) 16\n
      B\n
      2.5\n
(4) 24  34.4  23\n
```

- read character using **get**
  get: read one character from input stream without skipping white spaces

  what values are in v1, f1, ch, ch1, ch2 :

```
(1)  cin >> v1;                    myIn>>v1;
     cin.get(ch);                  myIn.get(ch);
     cin >> str1;

(2)  cin.get(ch);                  myIn.get(ch);
     cin >> v1;                    myIn >> v1;
     cin >> f1;                    myIn >> f1;
     cin.get(ch);                  myIn.get(ch);
     cin >> str2;

(3)  cin.get(ch1);
     cin.get(ch2);
     cin>>ch1;
     cin >>f1;

     data:
     21  C  34.2\n
```

- read string : **>> vs. getline**

```
examples:                          data:
(1) cin >> st1;                    Motel 8 Super
(2) cin >> st1 >> v1 >> st2;
(3) getline (cin, st1);
```

  getline : read one line of characters (consuming the newline character)
  the reader marker moves to the beginning of the next line

- **ignore** in reading
  the ignore function is used to skip (read and discard) characters in the input steam.
  cin.igore(200, '\n')

  what are the values of the variables, where is the read marker?

Examples	data
(1) cin >> v1 >> v2; cin.ignore(100, '\n'); cin>> v2;	957 34 1235\n 128 96 \n
(2) cin >> ch1; cin.ignore(100, 'B') cin >> ch2;	A 22 B 16 C 19\n
(4) cin.ignore(2, '\n'); cin >> ch;	ABCDEF\n