Char

- Char represent a single such as the letter ‘a’ , the digit ‘6’, or a semicolon(‘;’)
- Character literals use single quotes such as ‘A’ or ‘Z’
- You can also declare char variables to be unsigned
  - ➔ Can be used to explicitly tell the compiler that a particular variable is a signed quantity
- We will talk about a character string in another lecture , much different than a single character.

Declaring a char

```
char  broiled ;          /*declare a char variable*/
broiled = ‘T’;           /*OK                     */
broiled = T;             /*NO! Thinks T is a variable */
broiled  =”T”;           /*No! Thinks “T” is a string     */
```

- If you omit the quotes, the compiler thinks that T is the name of a variable.
- If you use double quotes , its thinks you are using a string
- You can also use the numerical code to assign values

```
char grade = 65;         /* ok for ASCII, but poor style */
```

Escape Characters

- C containers special characters that represents actions
  - ➔ Backingspacing
  - ➔ Going to the next line
  - ➔ Making the terminal bell ring (or speak Beep)
- We can represent these actions by using special symbol sequences
  - ➔ Called escape sequences
- Escape sequences ,must be enclosed in single quotes when assigned to a character variable/

  char x = ‘\n’:

Escape sequence	Hex value in ASCII	Character represented
`\a`	07	Alert (Beep, Bell) (added in C89)[1]
`\b`	08	Backspace
`\e`[note 1]	1B	Escape character
`\f`	0C	Formfeed Page Break
`\n`	0A	Newline (Line Feed); see notes below
`\r`	0D	Carriage Return
`\t`	09	Horizontal Tab
`\v`	0B	Vertical Tab
`\\`	5C	Backslash
`\'`	27	Apostrophe or single quotation mark
`\"`	22	Double quotation mark
`\?`	3F	Question mark (used to avoid trigraphs)
`\`*nnn*[note 2]	any	The byte whose numerical value is given by *nnn* interpreted as an octal number
`\x`*hh…*	any	The byte whose numerical value is given by *hh…* interpreted as a hexadecimal number
`\u`*hhhh*[note 3]	none	Unicode code point below 10000 hexadecimal
`\U`*hhhhhhhh*[note 4]	none	Unicode code point where *h* is a hexadecimal digit