Strings

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Objective

- Introduction to Strings in C
- Declaring and initializing strings
- String manipulation functions (strlen, strcpy, strcat, strcmp)

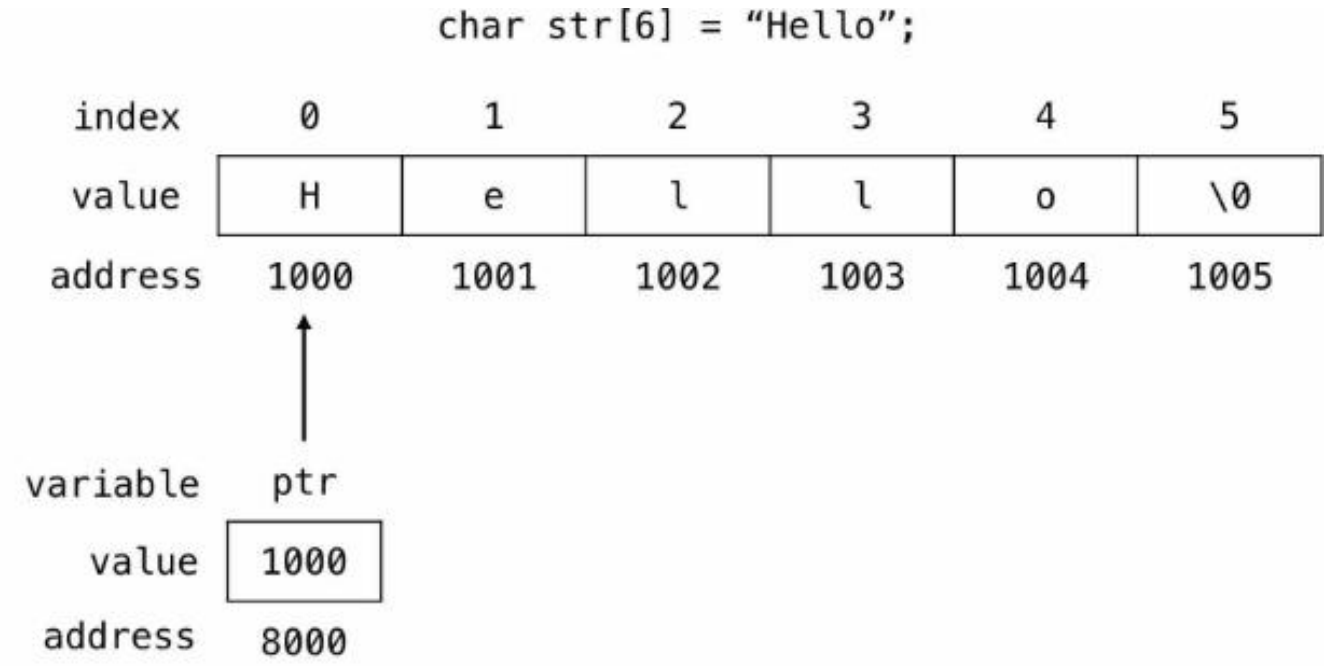
What is Strings

Strings are defined as an arrays of characters which ends by a special character ‘\0’ (null character)

Strings are used to store and manipulate data in text from.

Syntax:

char <Variable Name>[Size] = “<string literal>”
char <variable name>[size] = {‘’,’’,’’,’\0’}



Initialization and declaration

- Assigning a string literal

  char country[6] = "india";

  char country[] = "india";

  char * country = "india";

- Character by character

  char country[11] = {'i', 'n', 'd', 'i', 'a', '\0’};

  char country[] = {'i', 'n', 'd', 'i', 'a', '\0'};

- Declaring a uninitialized strings

  char name[7];

Input and Output Of strings

```
#include<stdio.h>


char str[20];
int main() {
    Printf(“Enter your name\n”);
    scanf(“%s”,str);
    printf(“Your name:%s\n”,str);
    return 0;
}
```

Input and Output Of strings

```
#include<stdio.h>


int main(){
    char str[50];
    puts("Enter your name:");
    gets(str);
    puts(str);
    return 0;
}
```

String Library Function

- Strlen()

  This function returns the length of the string.

  Declaration: size_t strlen(char const *string);

- Strcmp()

  This function compare two string, if match return 0 else a non-zero value.

  Declaration: char strcmp(char *str1, char *str2);

- Strcpy()

  This function used for coping one string to another string. And returns a pointer to destination string.

  Declaration: char *strcpy(char *str2, const char s2);

- Strcat()

  This function is used to append a copy of a string at the end of string.

  Declaration: char *strcat(char *str1, const char *str2);

- Strstr()

  this function is used to locate the first occurrence of the substring in another string.

  Declaration: char * strstr(const char *str1, const char *s2);

- Strchr()

  This function returns a pointer to first leftmost occurrence of the character *ch* in the string *str* .If character not present returns NULL.

  Declaration: char *strchr(const char *str, int ch);

- Strrchr()

  This function return a pointer to first right most occurrence of the character *ch* in the string *str* .If character is not present returns NULL.

  Declaration: char *strrchr(const char *str, int ch);

- Strncpy()

  This function copies exactly n characters from source string to destination string. It returns a pointer of destination string.

  Declaration: char *strncpy(char *s1, const char *s2, size_t n);

- Strncmp()

  This function compares characters of strings for a specific length.

  Declaration: int strncmp(char *s1, const char *s2, size_t length);

Thank You