

C library function - atof()

Description

The C library function **double atof(const char *str)** converts the string argument **str** to a floating-point number (type double).

Declaration

Following is the declaration for atof() function.

```
double atof(const char *str)
```

Parameters

- **str** – This is the string having the representation of a floating-point number.

Return Value

This function returns the converted floating point number as a double value. If no valid conversion could be performed, it returns zero (0.0).

Example

The following example shows the usage of atof() function.

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

int main () {
    float val;
    char str[20];

    strcpy(str, "98993489");
    val = atof(str);
    printf("String value = %s, Float value = %f\n", str, val);

    strcpy(str, "tutorialspoint.com");
    val = atof(str);
    printf("String value = %s, Float value = %f\n", str, val);
}
```

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```
    return(0);  
}
```

Let us compile and run the above program that will produce the following result –

```
String value = 98993489, Float value = 98993488.000000  
String value = tutorialspoint.com, Float value = 0.000000
```