ShreeSoft INFORMATICS
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String to Primitive Datatype Conversion

1) atof() – It converts a string to a floating-point number (double). The atof function skips all white-space characters at the beginning of the string, converts the subsequent characters as part of the number, and then stops when it encounters the first character that isn't a number.

Syntax: double atof(const char *s);

Example:

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
int main ()
{
  float value;
  char str[20];
  strcpy(str, "12345678");
  value = atof(str);
  printf("\nString = %s, Float value = %f", str, value);

  strcpy(str, "ShreeSoft");
  value = atof(str);
  printf("\nString = %s, Float value = %f", str, value);
}
```

2) atoi(): It Converts String to integer(int). If no valid conversions can be made for the given string, it then returns zero.

Syntax: int atoi(const char *s);

Example:

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
int main ()
{
  int value;
  char str[20];
  strcpy(str, "16021987");
  value = atoi(str);
  printf("\nString = %s, int value = %d ", str, value);

  strcpy(str, "ShreeSoft");
  value = atoi(str);
  printf("\nString = %s, int value = %d ", str, value);
}
```

3) atol(): It converts String to long integer (long). If no valid conversions can be made for the given string, it then returns zero.

Syntax: long atol(const char *s)

Example:

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
int main () {
  long value;
  char str[20];
  strcpy(str, "1602198713");
  value = atol(str);
  printf("\nString value = %s, Long value = %ld", str, value);

  strcpy(str, "ShreeSoft");
  value = atol(str);
  printf("\nString value = %s, Long value = %ld", str, value);
  return(0);
}
```