Ctype.h: Character testing and conversion functions

Function	Data type returned	Task
Isalnum(c)	Int	Determine if argument is alphanumeric. Return nonzero value if true; 0 otherwise.
Isalpha(c)	Int	Determine if argument is alphabetic. Return nonzero if true: 0 otherwise.
Isascii(c)	Int	Determine if argument is an ASCII character. Return nonzero value if true; 0 otherwise.
Iscntrl(c)	int	Determine if argument is an ASCII controlled character. Return nonzero value if true; 0 otherwise.
Isdigit(c)	int	Determine if argument is a decimal digit. Return nonzero value if true; 0 otherwise.
Isgraph(c)	Int	Determine if argument is a graphic printing ASCII character. Return nonzero value if true; 0 otherwise.
Islower(c)	Int	Determine if argument is lowercase. Return nonzero value if true; 0 otherwise.
Isodigit(c)	Int	Determine if argument is an octal digit. Return nonzero value if true; 0 otherwise.
Isprint(c)	int	Determine if argument is a printing ASCII character. Return nonzero value if true; 0 otherwise.
Ispunct(c)	Int	Determine if argument is a punctuation character. Return nonzero value if true; 0 otherwise.
Isspace(c)	Int	Determine if argument is a whitespace character. Return nonzero value if true; 0 otherwise.
Isupper(c)	int	Determine if argument is uppercase. Return nonzero value if true; 0 otherwise.
Isxdigit(c)	int	Determine if argument is a hexadecimal digit. Return nonzero value if true; 0 otherwise.
Toascii(c)	Int	Convert value of argument to ASCII.
tolower(c)	Char	Convert letter to lowercase.
Toupper(c)	Char	Convert letter to uppercase.

Math.h: Mathematical function.

Function	Data type returned	Task
Acos(d)	double	Return the arc cosine of d.
Asin(d)	double	Return the arc sine of d.
Atan(d)	double	Return the arc tangent of d.
Atam2(d1/d2)	double	Return the arc tangent of d1/d2.
Ceil(d)	double	Return a value rounded up to the next higher integer.
Cos(d)	double	Return the cosine of d.
Cosh(d)	double	Return the hyperbolic cosine of d.
Exp(d)	double	Return e to the power d.
Fabs(d)	double	Return the absolute value of d.
Floor(d)	double	Return a value rounded down to the next integer.
Fmod(d1/d2)	double	Return the remainder of d1/d2. (with same sign as d1)
Labs(l)	Long int	Return the absolute value of l.
Log(d)	double	Return the natural logarithm of d.
Log10(d)	double	Return the logarithm (base 10) of d.
Pow(d1,d2)	double	Return d1 raised to the power d2.
Sin(d)	double	Return the sine of d.
Sinh(d)	double	Return the hyperbolic sine of d.
Sqrt(d)	double	Return the square root of d.
Tan(d)	double	Return the tangent of d.
Tanh(d)	double	Return the hyperbolic tangent of d.

Stdio.h: Standard I/O library functions

Function	Data type returned	Task
Fclose(f)	int	Close file f. Return 0 if file is successfully closed.
Feof(f)	int	Determine if an end-of-file condition has been reached. If so, return a nonzero value; otherwise, return 0
Fgetc(f)	int	Enter a single character from file f
Fgets(s,i,f)	Char*	Enter a strings s, containing i characters from file f
Fopen(s1,s2)	File*	Open a file named s1 of type s2. Return a pointer to the file.
Fprintf(f,…)	int	Send data items to file f.
Fputc(c,f)	int	Send a single character to file f.
Fputs(s,f)	int	Send a string s to file f.
Fread(s,i1,i2,f)	int	Enter i2 data items, each of size i1 bytes, from file f to string s.
Fscanf(f,….)	int	Enter data items from file f.
Fseek(f,l,i)	int	Move the pointer for file f a distance l bytes from location i.
Ftell(f)	Long int	Return the current pointer position within file f.
Fwrite(s,i1,i2,f)	int	Sent i2 data items, each of size i1 bytes from string s to file f.
Getc(f)	int	Enter a single character from file f.
Getchar(void)	int	Enter a single character from the standard input device.
Gets(s)	Char*	Enter string s from the standard input device.
Printf(f,…)	int	Send data items to the standard output device.
Putc(c,f)	int	Send a single character to file f.
Putchar(c)	int	Send a single character to the standard output device.
Puts(s)	int	Send string s to the standard output device.
Rewind(f)	void	Move the pointer to the beginning of file f.
Scanf(…)	int	Enter data items from the standard input device.

Stdlib.h: Utility functions such as string conversion routines, memory allocation routines, random number generator, etc.

Function	Data type returned	Task
Abs(i)	int	Return the absolute value of i.
Atof(s)	double	Convert string s to a double-precision quantity.
Atoi(s)	int	Convert string s to an integer.
Atol(s)	long	Convert string s to a long integer.
Calloc(u1,u2)	Void*	Allocate memory for an array having u1 elements, each of length u2 bytes. Return a pointer to the beginning of the allocated space.
Exit(u)	void	Close all files and buffers, and terminate the program. (Value of u is assigned by the function, to indicate termination status).
Free(p)	void	Free a block of allocated memory whose beginning is indicated by p.
Malloc(u)	Void*	Allocate u bytes of memory. Return a pointer to the beginning of the allocated space.
Rand(void)	int	Return a random positive integer.
Realloc(p,u)	Void*	Allocate u bytes of new memory to the pointer variable p. Return a pointer to the beginning of the new memory space.
Srand(u)	void	Initialize the random number generator.
System(s)	int	Pass command string s to the operating system. Return 0 if the command is successfully executed; otherwise, return a nonzero value typically -1.

String.h: String manipulation functions.

Functions	Data type returned	Task
Strcmp(s1,s2)	int	Compare two strings lexicographically. Return a negative value if s1<s2; 0 if s1 and s2 are identical; and a positive value if s1>s2.
Strcmpi(s1,s2)	int	Compare two strings lexicographically, without regard to case. Return a negative value if s1<s2; 0 if s1 and s2 are identical; and a value of s1>s2.
Strcpy(s1,s2)	Char*	Copy string s2 to string s1.
Strlen(s)	int	Return the number of character in string s.
Strset(s,c)	Char*	Set all character within s to c. (Excluding the terminating null character '/0').