atoi_ex

Write a function in C or C++ that reads an ASCII character string and returns the integer value that it represents. The function should ignore leading whitespace and stop conversion at the first non-digit character.

Where conversion is not possible, the function should return 0 and indicate an error condition.

If the string is prefixed with "0x" then treat the input as hexadecimal.

Example:

```
int atoi_ex(const char *s, int *error)
{
       …
}
```

Input	Error?	Returns
"123"	No	123
"-1"	No	-1
"456abc"	No	456
"abc"	Yes	0
"0003"	No	3
""	Yes	0
"0"	No	0
" 123"	No	123
"0x123"	No	291
"0xabc"	No	2748
"0x456g"	No	1110
"0xghi"	Yes	0

The solution should not use any C/C++ runtime library routines such as "scanf".

Comment the code so that the interviewer may understand decisions you have taken when writing the code.

You should spend no more than 30 minutes on this task.