Exercises — my itoa base

version #

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Contents

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1 my itoa base

Files to submit:

- my_itoa_base/my_itoa_base.c
- my_itoa_base/my_itoa_base.h

Authorized headers: You are only allowed to use the functions defined in the following headers:

- assert.h
- err.h
- errno.h
- stddef.h

1.1 Goal

You have to implement the following function:

```
char *my_itoa_base(int n, char *s, const char *base);
```

This function should convert the integer `n` in its representation in base `base` and store this representation in `s` (without forgetting to end it by '\0'). The function returns the resulting string (the same as the one given by the argument `s`). Consider that the caller already allocated the space needed in `s`.

You need to handle negative numbers only in base 10.

The argument `base` is interpreted as follows: the `i`-th character of the string is the representation of the value `i` in the target base.

Base 1 is the only base you can leave behind. All other bases must be handled.

1.2 Examples

```
my_itoa_base(42, s, "0123456789ABCDEF");
```

s will be equal to "`2A`".

```
my_itoa_base(32, s, "0123456789abcdef");
```

s will be equal "`20`".

```
my_itoa_base(12, s, "01");
```

s will be equal "`1100`".

```
my_itoa_base(80, s, "0123456");
```

s will be equal "`143`".

It is my job to make sure you do yours.