

String Homework

Create a program that validates, formats, searches, and replaces strings.

Part 1: Validate Full Name

1. Input a string from the user.
2. Validate that the string is a full name, including:
 - a. a first name consisting of a capital letter followed by lower-case letters
 - b. a space
 - c. a last name in the same format as the first name
 - d. Example: John Dow
3. Display whether the name is valid or not.
4. Bonus: Validate an optional title and/or suffix
 - a. Titles: Mr. Ms. Dr.
 - b. Suffixes: II III Jr.

Part 2: Format Credit Card

1. Input a string from the user.
2. Validate that the string contains 23 digits.
3. Format the 23 digits as follows:
 - a. Example input: 12345678901234561220123
 - b. Example output: 1234-5678-9012-2346 Expiration 12/20 Code 123Don't worry about the expiration being a valid date.
4. Bonus: Verify the expiration is a valid month/year between 1980 and 2050.

Part 3: Search String

1. Input a string from the user.
2. Search for the strings "darn", "shoot", and "stink" within the user's string.
3. Display the positions of the search strings within the user's string.
 - a. Or display a not found message.

Part 4: Replace String

1. Input a text string from the user.
2. Replace the strings "darn", "shoot", and "stink" with "BLEEP" in the user's string.
3. Display the updated string.
 - a. Or display a not found message.

Example Data:

1. Invalid Full Names: JimBob, Jim Bob (2 spaces), jim bob, Jim boB
2. Valid Credit Card: 65432198765432101298321
Should Display: 6543-2198-7654-3210 Expiration 12/98 Code 321
3. Search/Replace: aaaa darn bbbb shoot cccc stink dddd