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2300-01 Assignment: Lab 1, Part 2: Hex

Verifier Description: determines whether a given sequence of characters

represents a valid hexadecimal number.\*/

#include <stdio.h>

#include <stdbool.h>

#include <string.h>

bool isHex(char seqArr[]){

char \*validChars[17] ={"0", "1", "2", "3", "4", "5", "6", "7", "8", "9", "A", "B", "C", "D", "E", "F", "\0"};

//if array is empty

if (strncmp(&seqArr[0], "\0", 1) == 0){

return false;

}

for (int i = 0; i <= 20; i ++){

bool listValid = true;

// until reaching last element in array

while (strncmp(&seqArr[i], "\0", 1) != 0){

bool isValid = false;

int j = 0;

while (j <= 16){

if (strncmp(&seqArr[i], validChars[j], 1) == 0){

isValid = true;

i += 1;

//start while loop over

j = 17;

}

else{

isValid = false;

j += 1;

}

}

if(isValid == false){

listValid = false;

return false;

}

}

return true;

}

return true;

}

int main(){

printf("\nPlease enter a character sequence:\n");

char seq[21];

scanf("%20s", seq);

bool hexSeq;

hexSeq = isHex(seq);

if (hexSeq == false){

main();

}

else{

printf("Thank you!");

return 0;

}

}