Experiment 5

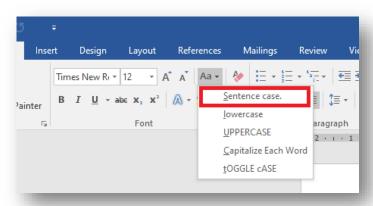
Q1) Write a C program with following function prototype to calculate and print the sum of the comma separated values that user enters. If you want to use ASCII table, it is given in the second page.

Hint: Numbers are entered as characters/string; number characters should be converted to numbers digit by digit.

Prototype: void sumNumbers(char * numbers); Example result:

```
Please enter the numbers with comma in-between: 10,20,5,126,1024
Here is the total of the given numbers: 1185
Process exited after 15 seconds with return value 0
Press any key to continue \dots
```

Q2) When we use word processing applications, we use a menu similar to the one below to modify the text easily.



You are expected to write a C program with following function prototype to convert first letters of each sentence in a string that user enters to uppercase. If you want to use ASCII table, it is given in the second page.

Prototype: void convertToSentenceCase(char * sentence);

Hint: You can get a string with spaces using scanf like this:

```
^\n|s", mysentence);
```

Example result:

```
Please enter your sentence:hello.this is my test sentence.it is for ele122 experiment 4.
Here is the result: Hello.This is my test sentence.It is for ele122 experiment 4.
Process exited after 3.149 seconds with return value 0
Press any key to continue . . .
```

17.05.2021

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ASCII TABLE

| Decimal | Hexadecimal | Binary | 0ctal | Char | Decimal | Hexadecimal | Binary | 0ctal | Char | Decimal | Hexadecimal | Binary | 0ctal | Char |
|---------|-------------|--------|-------|------------------------|---------|-------------|---------|-------|------|---------|-------------|---------|-------|-------|
| 0 | 0 | 0 | 0 | [NULL] | 48 | 30 | 110000 | 60 | 0 | 96 | 60 | 1100000 | 140 | ` |
| 1 | 1 | 1 | 1 | [START OF HEADING] | 49 | 31 | 110001 | 61 | 1 | 97 | 61 | 1100001 | 141 | а |
| 2 | 2 | 10 | 2 | [START OF TEXT] | 50 | 32 | 110010 | 62 | 2 | 98 | 62 | 1100010 | 142 | b |
| 3 | 3 | 11 | 3 | [END OF TEXT] | 51 | 33 | 110011 | 63 | 3 | 99 | 63 | 1100011 | 143 | C |
| 4 | 4 | 100 | 4 | [END OF TRANSMISSION] | 52 | 34 | 110100 | 64 | 4 | 100 | 64 | 1100100 | 144 | d |
| 5 | 5 | 101 | 5 | [ENQUIRY] | 53 | 35 | 110101 | 65 | 5 | 101 | 65 | 1100101 | 145 | e |
| 6 | 6 | 110 | 6 | [ACKNOWLEDGE] | 54 | 36 | 110110 | 66 | 6 | 102 | 66 | 1100110 | 146 | f |
| 7 | 7 | 111 | 7 | [BELL] | 55 | 37 | 110111 | 67 | 7 | 103 | 67 | 1100111 | 147 | g |
| 8 | 8 | 1000 | 10 | [BACKSPACE] | 56 | 38 | 111000 | 70 | 8 | 104 | 68 | 1101000 | 150 | h |
| 9 | 9 | 1001 | 11 | [HORIZONTAL TAB] | 57 | 39 | 111001 | 71 | 9 | 105 | 69 | 1101001 | 151 | i |
| 10 | Α | 1010 | 12 | [LINE FEED] | 58 | 3A | 111010 | 72 | : | 106 | 6A | 1101010 | 152 | j |
| 11 | В | 1011 | 13 | [VERTICAL TAB] | 59 | 3B | 111011 | 73 | ; | 107 | 6B | 1101011 | 153 | k |
| 12 | С | 1100 | 14 | [FORM FEED] | 60 | 3C | 111100 | 74 | < | 108 | 6C | 1101100 | 154 | 1 |
| 13 | D | 1101 | 15 | [CARRIAGE RETURN] | 61 | 3D | 111101 | | = | 109 | 6D | 1101101 | 155 | m |
| 14 | E | 1110 | 16 | [SHIFT OUT] | 62 | 3E | 111110 | 76 | > | 110 | 6E | 1101110 | 156 | n |
| 15 | F | 1111 | 17 | [SHIFT IN] | 63 | 3F | 111111 | 77 | ? | 111 | 6F | 1101111 | | 0 |
| 16 | 10 | 10000 | 20 | [DATA LINK ESCAPE] | 64 | 40 | 1000000 | 100 | @ | 112 | 70 | 1110000 | 160 | р |
| 17 | 11 | 10001 | 21 | [DEVICE CONTROL 1] | 65 | 41 | 1000001 | 101 | Α | 113 | 71 | 1110001 | 161 | q |
| 18 | 12 | 10010 | 22 | [DEVICE CONTROL 2] | 66 | 42 | 1000010 | 102 | В | 114 | 72 | 1110010 | 162 | r |
| 19 | 13 | 10011 | 23 | [DEVICE CONTROL 3] | 67 | 43 | 1000011 | . 103 | C | 115 | 73 | 1110011 | 163 | S |
| 20 | 14 | 10100 | 24 | [DEVICE CONTROL 4] | 68 | 44 | 1000100 | 104 | D | 116 | 74 | 1110100 | 164 | t |
| 21 | 15 | 10101 | 25 | [NEGATIVE ACKNOWLEDGE] | 69 | 45 | 1000101 | 105 | E | 117 | 75 | 1110101 | 165 | u |
| 22 | 16 | 10110 | 26 | [SYNCHRONOUS IDLE] | 70 | 46 | 1000110 | 106 | F | 118 | 76 | 1110110 | 166 | V |
| 23 | 17 | 10111 | 27 | [ENG OF TRANS. BLOCK] | 71 | 47 | 1000111 | 107 | G | 119 | 77 | 1110111 | 167 | W |
| 24 | 18 | 11000 | 30 | [CANCEL] | 72 | 48 | 1001000 | | н | 120 | 78 | 1111000 | | X |
| 25 | 19 | 11001 | 31 | [END OF MEDIUM] | 73 | 49 | 1001001 | | 1 | 121 | 79 | 1111001 | | У |
| 26 | 1A | 11010 | 32 | [SUBSTITUTE] | 74 | 4A | 1001010 | 112 | J | 122 | 7A | 1111010 | 172 | Z |
| 27 | 1B | 11011 | 33 | [ESCAPE] | 75 | 4B | 1001011 | | K | 123 | 7B | 1111011 | | { |
| 28 | 1C | 11100 | 34 | [FILE SEPARATOR] | 76 | 4C | 1001100 | | L | 124 | 7C | 1111100 | | |
| 29 | 1D | 11101 | 35 | [GROUP SEPARATOR] | 77 | 4D | 1001101 | | М | 125 | 7D | 1111101 | | } |
| 30 | 1E | 11110 | 36 | [RECORD SEPARATOR] | 78 | 4E | 1001110 | | N | 126 | 7E | 1111110 | | ~ |
| 31 | 1F | 11111 | | [UNIT SEPARATOR] | 79 | 4F | 1001111 | | 0 | 127 | 7F | 1111111 | 177 | [DEL] |
| 32 | 20 | 100000 | | [SPACE] | 80 | 50 | 1010000 | | P | | | | | |
| 33 | 21 | 100001 | | ! | 81 | 51 | 1010001 | | Q | | | | | |
| 34 | 22 | 100010 | | II . | 82 | 52 | 1010010 | | R | | | | | |
| 35 | 23 | 100011 | | # | 83 | 53 | 1010011 | | S | | | | | |
| 36 | 24 | 100100 | | \$ | 84 | 54 | 1010100 | | T | | | | | |
| 37 | 25 | 100101 | | % | 85 | 55 | 1010101 | | U | | | | | |
| 38 | 26 | 100110 | | & | 86 | 56 | 1010110 | | V | | | | | |
| 39 | 27 | 100111 | | | 87 | 57 | 1010111 | | W | | | | | |
| 40 | 28 | 101000 | | (| 88 | 58 | 1011000 | | X | | | | | |
| 41 | 29 | 101001 | |) | 89 | 59 | 1011001 | | Y | | | | | |
| 42 | 2A | 101010 | | * | 90 | 5A | 1011010 | | Z | | | | | |
| 43 | 2B | 101011 | | + | 91 | 5B | 1011011 | | Ţ | | | | | |
| 44 | 2C | 101100 | | 1 | 92 | 5C | 1011100 | | 7 | | | | | |
| 45 | 2D | 101101 | | • | 93 | 5D | 1011101 | | 1 | | | | | |
| 46 | 2E | 101110 | | : | 94 | 5E | 1011110 | | ^ | | | | | |
| 47 | 2F | 101111 | 57 | 1 | 95 | 5F | 1011111 | . 137 | _ | | | | | |