F Your program must read from file **f_in.txt** an arbitrary number of character strings of at most 767 characters containing arbitrary characters.

- *Letters represent encodings* of hexadecimal numbers: every letter represents one hex digit with the value of its ASCII code modulo 16. E.g. **aAc** encodes the hexadecimal number **0x113** (see ASCII chart at the bottom). From the ASCII chart is comes that: digit 1 can be encoded as **A**, **Q**, **a**, or **q**; digit 6 can be encoded as **F**, **f**, **V**, or **v**, and so on. (*Hint*: look in the **Hex** column for the least significant digit and to the right of it you find the **letter**).
- *Digits represent encodings of arbitrary text*, with two digits per letter: **01** represents **A, 02** represents **B, …, 26** represents **Z**; **27**represents **a**, **29** represents **b**, …, **52** represents **z**. Digits always come in pairs.
- All other characters stand for themselves, and are not encoded. You should decode those strings and write the *decoded text to output file* **f_out.txt** the decoded lines. See an example below.

Example input:

```
20343545 3545 27 494140303144324738 343150 404739283144: OOPSJLkm. 094540'46
354 6?
01404146343144 283127474635324738 404739283144 09 453131 3545 KLmNoixwVuTSRAP
2044474546 3931. 09 37404149 27 384146!
```

Contents of **f_out.txt** *for the example input:*

```
This is a wonderful hex number: FF03ACBD. Isn't it?
Another beautiful number I see is BCDEF9876543210
Trust me. I know a lot!
```

Design and implement a commented **modular** C program for solving this problem.

Simplifications allowed for less credit:

- Use stdin for input (-1)
- Use stdout for all output (-1)
- Number of lines given on the first line of input (-1)
- Use hardcoded data – no input at all, fixed data in program (-3)
- Program not modular (-1)

You must name your Codeblocks project as follows **F_groupID_FamilyName_FirstName**.
 E.g.
        F_30414_Joldos_Marius
When time expires (i.e. after 1 hour and 50 minutes), you should pack your project using 7zip and send the packed file to:
        mjoldos@yahoo.com

Note that encoding for , 'A' is it's number (column marked with '#') represented with 2 digits.

e.g.

#	Hex	Letter	#	Hex	Letter	#	Hex	Letter	#	Hex	Letter
1	41	A	14	4E	N	27	61	a	40	6E	n
2	42	B	15	4F	O	28	62	b	41	6F	o
3	43	C	16	50	P	29	63	c	42	70	p
4	44	D	17	51	Q	30	64	d	43	71	q
5	45	E	18	52	R	31	65	e	44	72	r
6	46	F	18	53	S	32	66	f	45	73	s
7	47	G	20	54	T	33	67	g	46	74	t
8	48	H	21	55	U	34	68	h	47	75	u
9	49	I	22	56	V	35	69	i	48	76	v
10	4A	J	23	57	W	36	6A	j	49	77	w
11	4B	K	24	58	X	37	6B	k	50	78	x
12	4C	L	25	59	Y	38	6C	l	51	79	y
13	4D	M	26	5A	Z	39	6D	m	52	7A	z