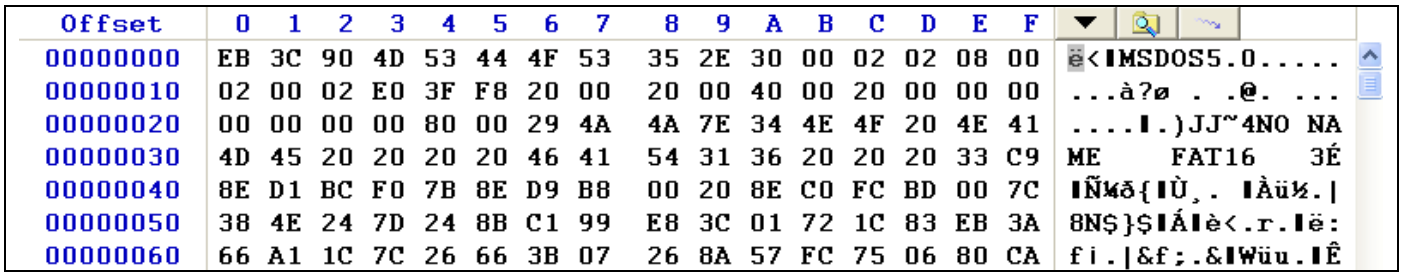
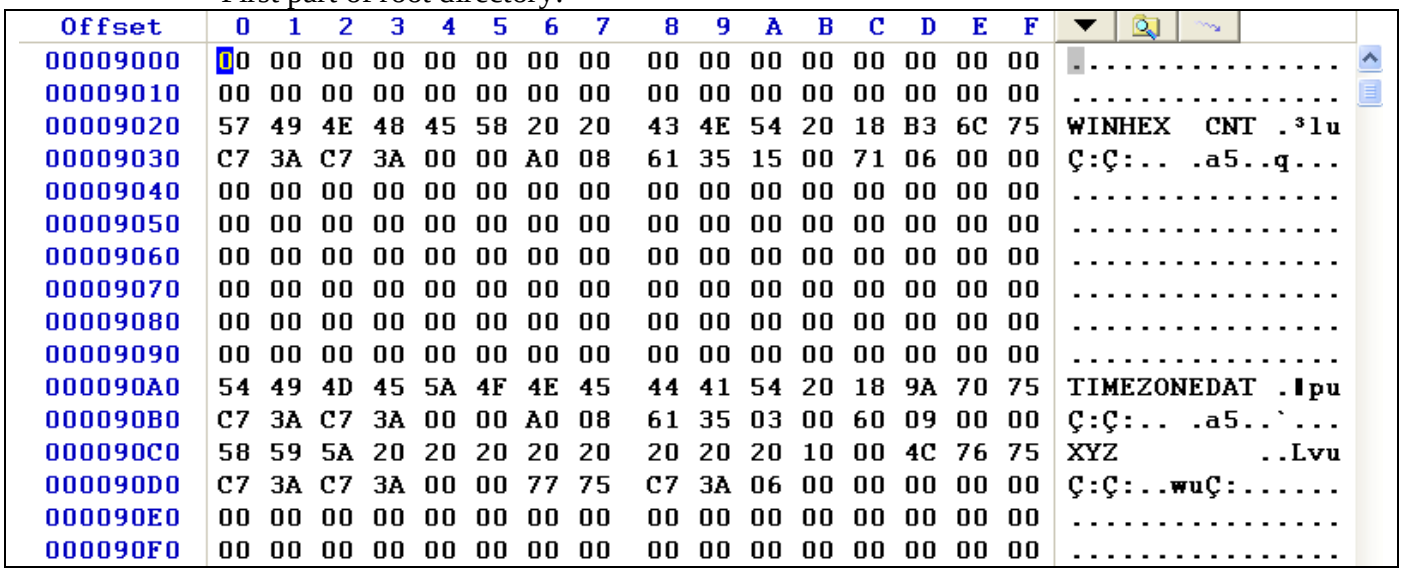
Problem 1: A volume:

- BootSector:



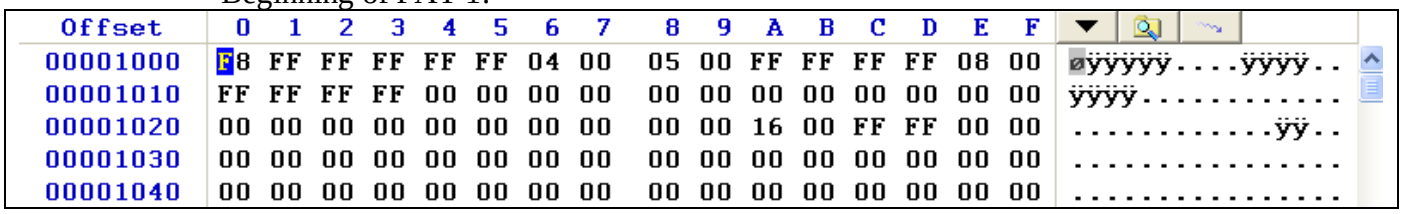
Offset	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00000000	EB	3C	90	4D	53	44	4F	53	35	2E	30	00	02	02	08	00
00000010	02	00	02	E0	3F	F8	20	00	20	00	40	00	20	00	00	00
00000020	00	00	00	00	80	00	29	4A	4A	7E	34	4E	4F	20	4E	41
00000030	4D	45	20	20	20	20	46	41	54	31	36	20	20	20	33	C9
00000040	8E	D1	BC	F0	7B	8E	D9	B8	00	20	8E	C0	FC	BD	00	7C
00000050	38	4E	24	7D	24	8B	C1	99	E8	3C	01	72	1C	83	EB	3A
00000060	66	A1	1C	7C	26	66	3B	07	26	8A	57	FC	75	06	80	CA

- First part of root directory:



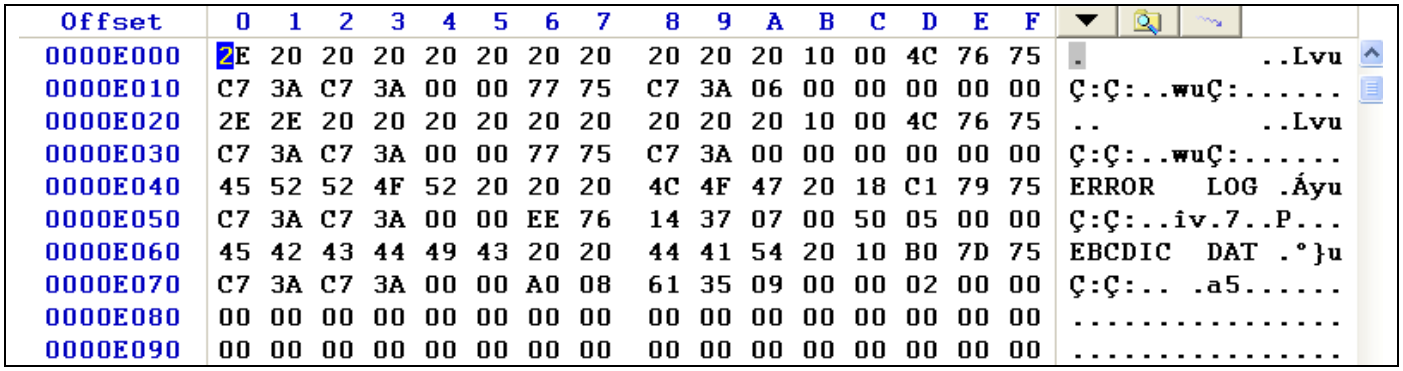
Offset	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00009000	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
00009010	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
00009020	57	49	4E	48	45	58	20	20	43	4E	54	20	18	B3	6C	75
00009030	C7	3A	C7	3A	00	00	A0	08	61	35	15	00	71	06	00	00
00009040	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
00009050	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
00009060	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
00009070	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
00009080	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
00009090	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
000090A0	54	49	4D	45	5A	4F	4E	45	44	41	54	20	18	9A	70	75
000090B0	C7	3A	C7	3A	00	00	A0	08	61	35	03	00	60	09	00	00
000090C0	58	59	5A	20	20	20	20	20	20	20	20	10	00	4C	76	75
000090D0	C7	3A	C7	3A	00	00	77	75	C7	3A	06	00	00	00	00	00
000090E0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
000090F0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

- Beginning of FAT 1:



Offset	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00001000	F8	FF	FF	FF	FF	FF	04	00	05	00	FF	FF	FF	FF	08	00
00001010	FF	FF	FF	FF	00	00	00	00	00	00	00	00	00	00	00	00
00001020	00	00	00	00	00	00	00	00	00	00	16	00	FF	FF	00	00
00001030	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
00001040	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

- Cluster 6th:



Offset	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0000E000	2E	20	20	20	20	20	20	20	20	20	20	10	00	4C	76	75
0000E010	C7	3A	C7	3A	00	00	77	75	C7	3A	06	00	00	00	00	00
0000E020	2E	2E	20	20	20	20	20	20	20	20	20	10	00	4C	76	75
0000E030	C7	3A	C7	3A	00	00	77	75	C7	3A	00	00	00	00	00	00
0000E040	45	52	52	4F	52	20	20	20	4C	4F	47	20	18	C1	79	75
0000E050	C7	3A	C7	3A	00	00	EE	76	14	37	07	00	50	05	00	00
0000E060	45	42	43	44	49	43	20	20	44	41	54	20	10	B0	7D	75
0000E070	C7	3A	C7	3A	00	00	A0	08	61	35	09	00	00	02	00	00
0000E080	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
0000E090	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

a) Fill the information of volume

No.	Content	Value
1	FAT type	
2	Bytes per sector	

3	Sectors per cluster	
4	Size of reserved area, in sectors	
5	Number of FATs	
6	Number of sector for RDET	
7	Number of sector on disk	
8	Number of sectors per FAT	
9	First sector of FAT1	
10	First sector of RDET	
11	First sector of Data	

b) Draw directory of the Volume, with the cluster numbers of every file, directory.

Problem 2: Given volume:

- BootSector:

Offset	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00000000	EB	3C	90	52	41	4D	44	53	4B	58	50	00	02	02	01	00
00000010	02	00	02	00	00	F8	28	00	20	00	40	00	20	00	00	00
00000020	E0	4F	00	00	80	00	29	00	20	66	EE	52	41	4D	44	49
00000030	53	4B	58	50	20	20	46	41	54	31	36	20	20	20	33	C9
00000040	8E	D1	BC	F0	7B	8E	D9	B8	00	20	8E	C0	FC	BD	00	7C

- RDET:

Offset	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0000A200	53	41	4D	50	4C	45	20	20	57	48	53	20	18	1F	A7	3E
0000A210	D5	3A	D5	3A	00	00	A0	08	61	35	02	00	03	08	00	00
0000A220	42	54	00	46	00	53	00	2E	00	74	00	0F	00	FC	70	00
0000A230	6C	00	00	00	FF	FF	FF	FF	FF	FF	00	00	FF	FF	FF	FF
0000A240	01	42	00	6F	00	6F	00	74	00	20	00	0F	00	FC	53	00
0000A250	65	00	63	00	74	00	6F	00	72	00	00	00	20	00	4E	00
0000A260	42	4F	4F	54	53	45	7E	31	54	50	4C	20	00	AA	A9	3E
0000A270	D5	3A	D5	3A	00	00	A0	08	61	35	05	00	4B	06	00	00
0000A280	49	4E	4F	44	45	20	20	20	54	50	4C	20	18	C0	B4	3E
0000A290	D5	3A	D5	3A	00	00	A0	08	61	35	07	00	A0	04	00	00
0000A2A0	54	4D	43	20	20	20	20	20	20	20	20	10	00	AF	B9	3E
0000A2B0	D5	3A	D5	3A	00	00	BA	3E	D5	3A	09	00	00	00	00	00
0000A2C0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
0000A2D0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

- FAT1:

Offset	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00000200	F8	FF	FF	FF	03	00	04	00	FF	FF	06	00	FF	FF	08	00
00000210	FF	FF	FF	FF	FF	FF	0C	00	FF	FF	0E	00	FF	FF	00	00
00000220	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
00000230	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

- Sector 127:

Offset	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0000FE00	2E	20	20	20	20	20	20	20	20	20	20	10	00	AF	B9	3E
0000FE10	D5	3A	D5	3A	00	00	BA	3E	D5	3A	09	00	00	00	00	00
0000FE20	2E	2E	20	20	20	20	20	20	20	20	20	10	00	AF	B9	3E
0000FE30	D5	3A	D5	3A	00	00	BA	3E	D5	3A	00	00	00	00	00	00
0000FE40	57	49	4E	48	45	58	20	20	43	4E	54	20	18	65	BC	3E
0000FE50	D5	3A	D5	3A	00	00	A0	08	61	35	0B	00	71	06	00	00
0000FE60	45	52	52	4F	52	20	20	20	4C	4F	47	20	18	B9	C2	3E
0000FE70	D5	3A	D5	3A	00	00	EE	76	14	37	0D	00	50	05	00	00
0000FE80	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
0000FE90	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

a) Fill information of the Volume

STT	Nội dung	Giá trị
1	FAT type	

2	Bytes per sector	
3	Sectors per cluster	
4	Sectors in reserved area	
5	Sectors per FAT	
6	Number of FATs	
7	Number of sectors for RDET	
8	Number of sectors of disk	
9	First Sector of FAT1	
10	First Sector of RDET	
11	First Sector of Data	

b) Draw directory of the Volume, with the cluster numbers of every file, directory.

c) After MOVE ERROR.LOG into root directory, this operation will effect on:
   i. Check "x" if unchanged
   ii. If changed, write the modified sector numbers. If all sectors of a part are changed, write ALL

	Unchanged	**Modified (sector number)**
FAT1		
FAT2		
RDET		
Data		

d) After DELETE file WINHEX.CNT, this operation will effect on:
   iii. Check "x" if unchanged
   iv. If changed, write the modified sector numbers. If all sectors of a part are changed, write ALL.

	Unchanged	**Modified (sector number)**
FAT1		
FAT2		
RDET		
Data		