## Challenge: Shattered Tablet

## Challenge Description:

Deep in an ancient tomb, you've discovered a stone tablet with secret information on the locations of other relics. However, while dodging a poison dart, it slipped from your hands and shattered into hundreds of pieces. Can you reassemble it and read the clues?

## Context:

 Analyze this Compiled file, for this one you must keep your eyes peeled as its looking at plain binary, for reconstruction on the HTB flag

## Flag:

- First Install the files and extract them, Load it up with a decompiler that supports ELF files at least.
- I opened it up with IDA Decompiler and went to start on the main function, to look for anything interesting.
- I only thing i found was some logic to enter a specific string, that had been messed about with and scattered in random binary locations
- The [M] at the top represents the main function and the boxes in-between leading downwards towards the [Key] each contain a single Characters i need to reconstruct the flag. The Last three boxes at the end is logic for if the flag is correct or not.
- Each of the Boxes in-between are also not in-order so i will need to find a pattern to match them.
- I was finally able to find a way to reconstruct the flag, reading the binary closely you can start to realize they are labeled to be put in order.
- For example a flag would be like: HTB{Ex4mpl3}.
   And the binary for H will be [rbp+s] and T will be [rbp+s+1]

 The Reconstruction of the flag wasn't as easy as i hoped, but going slowly one by one i was able to do it.

```
> rbp+s
 byte ptr [rbp+var_20+2]
                              al, 34h; '4'
11CA
                      cmp
11CC
                      jnz
                              loc_1378
11D2
                     movzx
                              eax, byte ptr [rbp+var_30+4]
                              al, 33h ; '3'
11D6
                      cmp
11D8
                      jnz
                              loc_1378
11DE
                      movzx
                              eax, byte ptr [rbp+var_20+4]
11E2
                              al, 72h; 'r'
                      cmp
11E4
                      jnz
                              loc_1378
11EA
                     movzx
                              eax, [rbp+s+1]
11EE
                      cmp
                              al, 54h; 'T'
                              loc_1378
11F0
                      jnz
                              eax, byte ptr [rbp+var_30+5]
11F6
                     movzx
11FA
                      cmp
                              al, 76h; 'v'
11FC
                      jnz
                              loc_1378
                              eax, [rbp+s+6]
1202
                     movzx
                              al, 30h; '0'
1206
                      cmp
1208
                      jnz
                              loc_1378
                              eax, byte ptr [rbp+var_20+7]
120E
                     movzx
                              al, 7Dh ;
1212
                      cmp
1214
                              loc_1378
                      jnz
121A
                      movzx
                              eax, byte ptr [rbp+var_20+6]
121E
                              al, 64h; 'd'
                      cmp
1220
                              loc_1378
                      jnz
1226
                     movzx
                              eax, byte ptr [rbp+var_28+7]
122A
                      cmp
                              al, 72h; 'r'
122C
                              loc_1378
                      jnz
1232
                     movzx
                              eax, byte ptr [rbp+var_28+5]
                              al, 33h; '3'
1236
                      cmp
1238
                              loc_1378
                      jnz
                              eax, byte ptr [rbp+var_38]
123E
                     movzx
1242
                      cmp
                              al, 33h; '3'
1244
                      jnz
                              loc_1378
124A
                              eax, byte ptr [rbp+var_30+6]
                     movzx
124E
                              al, 65h ; 'e'
                      cmp
1250
                              loc_1378
                      jnz
1256
                      movzx
                              eax, byte ptr [rbp+var_20+3]
                              al, 31h ; '1'
125A
                      cmp
125C
                              loc_1378
                      jnz
1262
                     movzx
                              eax, [rbp+s+5]
1266
                      cmp
                              al, 72h; 'r'
1268
                      jnz
                              loc_1378
126E
                     movzx
                              eax, [rbp+s]
                              al, 48h; 'H'
1272
1274
                              loc_1378
                      jnz
127A
                      movzx
                              eax, byte ptr [rbp+var_20]
                              al, 33h ; '3'
127E
                      cmp
```

• The Flag when Constructed should be:

HTB{br0k3n\_4p4rt...n3ver\_t0\_b3\_r3p41r3d}