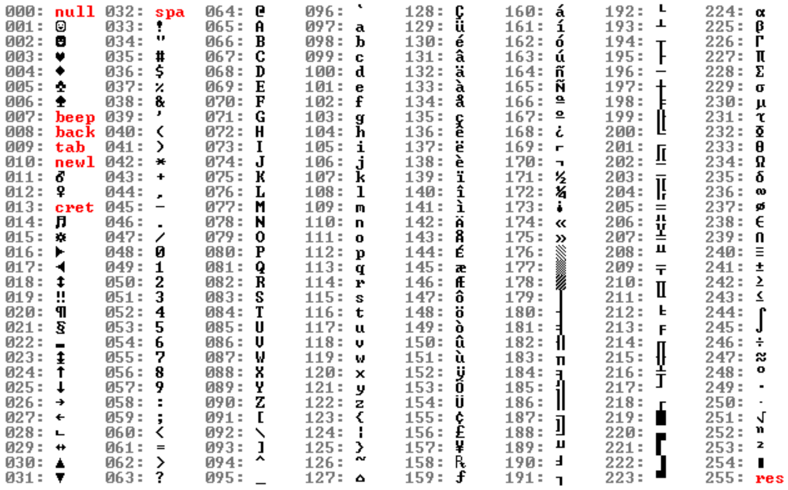
Final Project:

Below is the ASCII map of Intel 8086 microprocessor

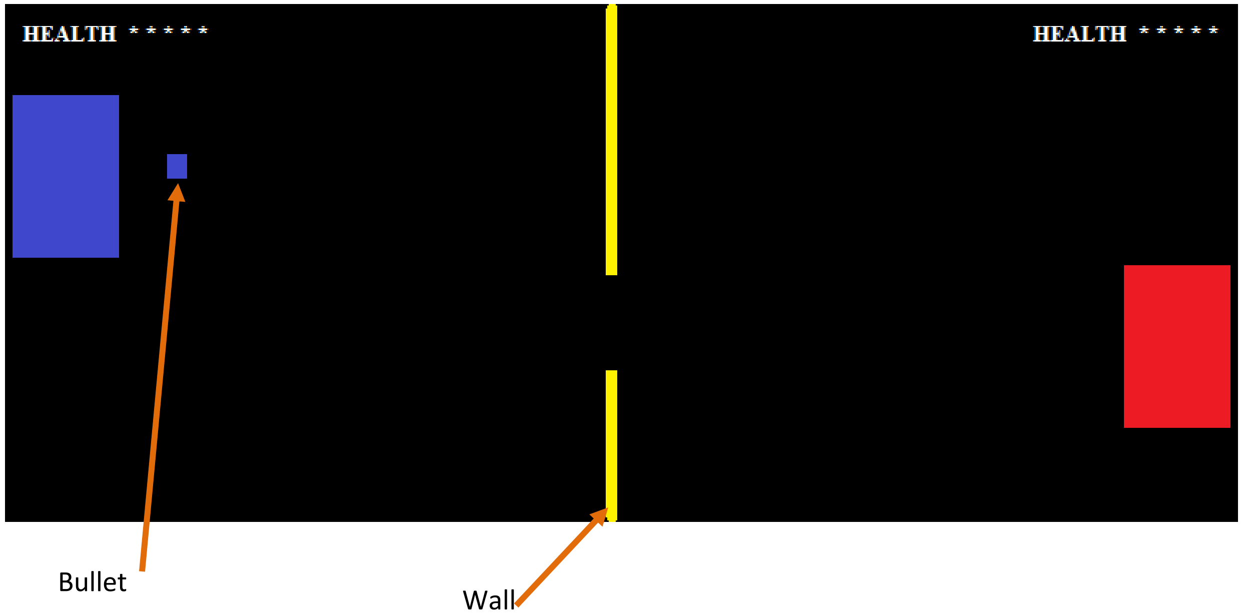


```
000: null 032: spa  064: @    096: `    128: Ç    160: á    192: └    224: α
001: ☺    033: !    065: A    097: a    129: ü    161: í    193: ┴    225: ß
002: ☻    034: "    066: B    098: b    130: é    162: ó    194: ┬    226: Γ
003: ♥    035: #    067: C    099: c    131: â    163: ú    195: ├    227: π
004: ♦    036: $    068: D    100: d    132: ä    164: ñ    196: ─    228: Σ
005: ♣    037: %    069: E    101: e    133: à    165: Ñ    197: ┼    229: σ
006: ♠    038: &    070: F    102: f    134: å    166: ª    198: ╞    230: µ
007: beep 039: '    071: G    103: g    135: ç    167: º    199: ╟    231: τ
008: back 040: (    072: H    104: h    136: ê    168: ¿    200: ╚    232: Φ
009: tab  041: )    073: I    105: i    137: ë    169: ⌐    201: ╔    233: Θ
010: newl 042: *    074: J    106: j    138: è    170: ¬    202: ╩    234: Ω
011: ♂    043: +    075: K    107: k    139: ï    171: ½    203: ╦    235: δ
012: ♀    044: ,    076: L    108: l    140: î    172: ¼    204: ╠    236: ∞
013: cret 045: -    077: M    109: m    141: ì    173: ¡    205: ═    237: φ
014: ♫    046: .    078: N    110: n    142: Ä    174: «    206: ╬    238: ε
015: ☼    047: /    079: O    111: o    143: Å    175: »    207: ╧    239: ∩
016: ►    048: 0    080: P    112: p    144: É    176: ░    208: ╨    240: ≡
017: ◄    049: 1    081: Q    113: q    145: æ    177: ▒    209: ╤    241: ±
018: ↕    050: 2    082: R    114: r    146: Æ    178: ▓    210: ╥    242: ≥
019: ‼    051: 3    083: S    115: s    147: ô    179: │    211: ╙    243: ≤
020: ¶    052: 4    084: T    116: t    148: ö    180: ┤    212: ╘    244: ⌠
021: §    053: 5    085: U    117: u    149: ò    181: ╡    213: ╒    245: ⌡
022: ▬    054: 6    086: V    118: v    150: û    182: ╢    214: ╓    246: ÷
023: ↨    055: 7    087: W    119: w    151: ù    183: ╖    215: ╫    247: ≈
024: ↑    056: 8    088: X    120: x    152: ÿ    184: ╕    216: ╪    248: °
025: ↓    057: 9    089: Y    121: y    153: Ö    185: ╣    217: ┘    249: ∙
026: →    058: :    090: Z    122: z    154: Ü    186: ║    218: ┌    250: ·
027: ←    059: ;    091: [    123: {    155: ¢    187: ╗    219: █    251: √
028: ∟    060: <    092: \    124: ¦    156: £    188: ╝    220: ▄    252: ⁿ
029: ↔    061: =    093: ]    125: }    157: ¥    189: ╜    221: ▌    253: ²
030: ▲    062: >    094: ^    126: ~    158: ₧    190: ╛    222: ▐    254: ■
031: ▼    063: ?    095: _    127: ⌂    159: ƒ    191: ┐    223: ▀    255: res
```

Write an 8086 assembly code that does the following:

- Show a welcome screen with "Press a if player 1 is ready" and "press ↑ if player 2 is ready"

- Once the two players are ready, the game starts and the interface should look like this



- The wall is continuously moving up and down.

- Any time player 1 hits 'a' or player 2 hits '↑' a bullet is fired

- If the bullet hits the wall, the bullet disappears

- If the bullet passes to the other player, one * is removed from its health

- Each player can fire a single bullet and should wait for the first bullet to end before firing the next bullet

- The two players can fire simultaneously

- The game ends when a player looses all *

- Once the game ends, the game should reload from the beginning

- Use ASCII 219 to draw the player blocks, sliding wall, and bullets

- The players blocks and the sliding wall should have different colors as seen in the image above

- Progress reports (code) should be submitted regularly on e-learning

NOTES:

- No email/late submissions will be accepted

- Cheating will not be tolerated. The use of codes available online is considered cheating

- No extension will be made on the project deadline