```c
int main (void){

char letter = 0, digit_num;

setup_HW;


I2C_Tx_any_segment_clear_all();

if (watch_dog_reset != 1)String_to_PC_Basic(message_1);
else String_to_PC_Basic(message_2);

while(1){digit_num=0;
while(digit_num < 8){

if(isCharavailable_Basic(1))                          //Wait up to 25mS for a key
press.  In the absence of one
{switch(letter = Char_from_PC_Basic()){                      //the program reverts back
to "while(digit_num < 8){"
case 'a': case 'A':                                   //otherwise it continues and
updates the display
case 'b': case 'B':                                   //Program execution is not put on
hold awaiting a keypress
case 'c': case 'C':
case 'd': case 'D':
case 'e': case 'E':
case 'f': case 'F':
case 'g': case 'G':
I2C_Tx_any_segment(letter, digit_num); break;
case 'x': case 'X': digit_num += 1;break;
case 'z': SW_reset;break;
default: break;}}
_delay_ms(25);
wdr();
}}}
```