```
int main (void){

char   digit='0';
int digit_num=0;                                //defines number of next digit on display
int string_counter=0;
int letter_counter=0;
const char* string_ptr = 0;                     //pointer: will be loaded with the address of a segment string
                                                //(i.e. the address of string "zero", "one", "two" etc....)

setup_HW;


if(watch_dog_reset != 1){
print_memory_contents;
String_to_PC_Basic("\r\nSend digits?");}

else String_to_PC_Basic("\r\nAgain");

I2C_Tx_any_segment_clear_all();

digit_num = 0;                                      //First digit on display

do{                                                 //start of "do{}while();" loop
while(!(isCharavailable_Basic(1)))wdr();
digit = Char_from_PC_Basic();                       //user enters digit (0 to 9) at the PC keyboard

switch(digit){                                      //The appropriate address is loaded into location
                                                    //"string_pointer"
case '0': string_ptr = zero; break;                 //The address of array zero is loaded into
                                                    //location "string_ptr"
case '1': string_ptr = one; break;
case '2': string_ptr = two; break;
case '3': string_ptr = three; break;
case '4': string_ptr = four; break;
case '5': string_ptr = five; break;
case '6': string_ptr = six; break;
case '7': string_ptr = seven; break;
case '8': string_ptr = eight; break;
case '9': string_ptr = nine; break;
default: continue; break;}                          //Illegal key press: Go immediately to the start of the
                                                    //do loop.

                                                    //Send the address of the required string to
                                                    //subroutine "display_num_string();"
display_num_string(string_ptr, digit_num);digit_num++;}
while (digit_num < 8);                              //return to the top of the "do" loop until all digits
                                                    //have been illuminated


while(!(isCharavailable_Basic(1)))wdr();
Char_from_PC_Basic();
I2C_Tx_any_segment_clear_all();                     //clear display and repeat
SW_reset;}
```