1. Please download and debug the program Assignment14errors.c from Blackboard. This program is intended to play a game of Hangman. There are at least seven errors in this program, and your job is to locate and correct all of them. When you have done so, please briefly describe each of the errors below and attach a copy of your operational code and a sample game to this cover sheet.

   Error #1: No <stdio.h> include
   Error #2: no pointer symbol before char randWord = NULL
   Error #3: Missing semicolon in line 217 (printf("\n**********\n"))
   Error #4: line152 for loop *(guessWord+i) not +1
   Error #5: if (letterFound = 0) should be ==
   Error #6: if(strcmp(randWord,guessWord)=0) needs an ==
   Error #7: case 4 missing break statement

```
/* AssignmentHangman*/ //wrong
#include <stdio.h>
#include <stdlib.h>
#include <ctype.h>
#include <time.h>
#include <string.h>
#define NUMWORDS 80368
#define MAXLENGTH 25

int showHangman(int i)
{
  switch (i)
  {
    case 0 :
    printf("\n");
    printf("\n");
    printf("\n");
    printf("\n");
    printf("\n");
    printf("\n");
    printf("_____\n\n");
    break;

    case 1 :
    printf("\n");
    printf("  |\n");
    printf("  |\n");
    printf("  |\n");
    printf("  |\n");
    printf("  |\n");
```

```
printf("__|_________\n\n");
break;

case 2 :
printf("  _______\n");
printf("  |\n");
printf("  |\n");
printf("  |\n");
printf("  |\n");
printf("  |\n");
printf("__|_________\n\n");
break;

case 3 :
printf("  _______\n");
printf("  |/\n");
printf("  |\n");
printf("  |\n");
printf("  |\n");
printf("  |\n");
printf("__|_________\n\n");
break;

case 4 :
printf("  _______\n");
printf("  |/ | \n");
printf("  |  O \n");
printf("  |\n");
printf("  |\n");
printf("  |\n");
printf("__|_________\n\n");
break;
case 5 :
printf("  _______\n");
printf("  |/ | \n");
printf("  |  O \n");
printf("  |  |\n");
printf("  |  |\n");
printf("  |\n");
printf("__|_________\n\n");
break;

case 6 :
printf("  _______\n");
```

```
printf("  |/ | \n");
printf("  |  O \n");
printf("  | \\|\n");
printf("  |  | \n");
printf("  |\n");
printf("__|_________\n\n");
break;

case 7 :
printf("  _______\n");
printf("  |/ | \n");
printf("  |  O \n");
printf("  | \\|/\n");
printf("  |  | \n");
printf("  |\n");
printf("__|_________\n\n");
break;

case 8 :
printf("  _______\n");
printf("  |/ | \n");
printf("  |  O \n");
printf("  | \\|/\n");
printf("  |  | \n");
printf("  | /\n");
printf("__|_________\n\n");
break;

case 9 :
printf("  _______\n");
printf("  |/ | \n");
printf("  |  O \n");
printf("  | \\|/\n");
printf("  |  | \n");
printf("  | / \\\n");
printf("__|_________\n\n");
break;

case 10 :
printf("  _______\n");
printf("  |/ | \n");
printf("  |  X \n");
printf("  | \\|/\n");
printf("  |  | \n");
```

```
    printf("  | / \\\n");
    printf("__|_________\n\n");
    break;
  }
}

int main(void)
{
  int wordNum=0;
  int i;
  char *randWord=NULL;
  char *guessWord=NULL;
  char dictionary[NUMWORDS][MAXLENGTH];
  char wrongLetters[10];
  int numErrors=0, numGuesses=0;
  char guessChar;
  int letterFound;

  //This section of the code reads the contents
  //of Dictionary1.txt into dictionary[][].
  freopen("./Dictionary1.txt", "r", stdin);
  for (i=0; i<NUMWORDS; i++) scanf("%s", &dictionary[i]);
  freopen("CON", "r", stdin);
  fflush(stdin);
  //End of file access section of the program.

  srand(time(NULL));
  wordNum=rand()%NUMWORDS+1;
  randWord=dictionary[wordNum];
  guessWord=malloc(strlen(randWord)*sizeof(char));

  for (i=0; i<strlen(randWord); i++)
  {
    *(guessWord+i)='-';
  }
  *(guessWord+i)='\0';

  /* Printing introduction message */
  printf("Welcome to Hangman!\n");
  printf("Your goal is to guess my random word\n");
  printf("Each time you guess a wrong letter, I add\n");
  printf("one more part to the picture.  If you make\n");
  printf("ten wrong guesses, you will lose.\n");
  printf("Here we go!\n\n\n");
```

```
do{
 printf("Here is your current word: %s (dashes represent unknown letters)\n", guessWord);
        printf("Please enter your next guess:");
        guessChar=getchar();
        fflush(stdin);
        guessChar=tolower(guessChar);

 if(!isalpha(guessChar))
        {
         printf("Sorry, only letters are allowed.\n\n");
         continue;
        }

        letterFound=0;
 for (i=0; i< strlen(randWord); i++)
 {
  if ( *(randWord+i) == guessChar)
         {
    *(guessWord+i) = guessChar;
                    letterFound=1;
  }
 }
        if (letterFound == 0)
        {
          wrongLetters[numErrors]=guessChar;
  numErrors++;
  printf("\n**************************\n");
  printf("That letter was incorrect.\n");
  printf("**************************\n\n");
        } else {
  printf("\n**************************\n");
  printf("That letter was correct.\n");
  printf("**************************\n\n");
 }
        printf("Your current guess: %s\n", guessWord);

 showHangman(numErrors);
        printf("You have made %d errors so far (", numErrors);

        if(numErrors>0)
        {
  for (i=0; i<numErrors; i++)
         {
```

```
            printf("%c", wrongLetters[i]);
           }
          }
          printf(")\n");
          numGuesses++;
  } while((strcmp(randWord,guessWord)!=0) && (numErrors<10));


   printf("\n**************************\n");
   printf("Game Over!.\n");
   printf("**************************\n");


   if(strcmp(randWord,guessWord)==0)
   {
    printf("Congratulations!  You guessed my word, which was %s.\n", randWord);
          printf("It took you %d guesses, and you had %d incorrect guesses.", numGuesses,
numErrors);
   }

          if (numErrors>=10)
          {
           printf("Sorry, you lost.  You had 10 incorrect guesses out of %d.\n", numGuesses);
    printf("My secret word was %s.\n", randWord);
          }
 free(guessWord);
 return 0;
}
```