ASSIGNMENT-5

Hangman Game

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <time.h>

#define MAX_TRIES 6

const char *words[] = {"python", "hangman", "programming", "challenge", "openai"};

void print_hangman(int tries) {
    printf("\n");
    printf("  ------\n");
    printf("  |    |\n");
    if (tries < 6) printf("  |    O\n");
    if (tries < 5) printf("  |   /|\\\n");
    if (tries < 4) printf("  |   / \\\n");
    printf("  |\n");
}

int main() {
    srand(time(NULL));
    const char *word = words[rand() % (sizeof(words) / sizeof(words[0]))];
    int word_length = strlen(word);
    char guessed[word_length + 1];
```

```
int tries = MAX_TRIES;
int correct_guesses = 0;

for (int i = 0; i < word_length; i++) {
   guessed[i] = '_';
}
guessed[word_length] = '\0';

printf("Welcome to Hangman!\n");

while (tries > 0 && correct_guesses < word_length) {
   printf("%s\n", guessed);
   print_hangman(tries);
   printf("Enter a letter: ");
   char input;
   scanf(" %c", &input);

   int found = 0;
   for (int i = 0; i < word_length; i++) {
      if (word[i] == input && guessed[i] == '_') {
         guessed[i] = input;
         found = 1;
         correct_guesses++;
      }
   }
```

```
        if (!found) {
            tries--;
            printf("Incorrect! You have %d tries left.\n", tries);
        } else {
            printf("Good guess!\n");
        }
    }

    if (correct_guesses == word_length) {
        printf("Congratulations! You've guessed the word: %s\n", word);
    } else {
        printf("Sorry, you've run out of tries. The word was: %s\n", word);
    }

    return 0;
}
```