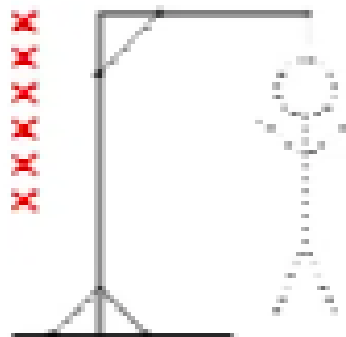


Assignment-5 (FOCP-1)

Assignment 5

The *Hangman Game* is one of the most famous games played on computers.



The Rules of the game are as follows:

1. There is given a word with omitted characters and you need to guess the characters to win the game.
2. Only 3 chances are available and if you win the Man survives or Man gets hanged.

So, it is the game can be easily designed in C language with the basic knowledge of if-else statements, loops, and some other basic statements. The code of the game is easy, short, and user-friendly.

```

void displayWord(char word[], char guessed[], int length) {
    for (int i = 0; i < length; i++) {
        if (guessed[i]) {
            printf("%c ", word[i]);
        } else {
            printf("_ ");
        }
    }
    printf("\n");
}

```

```

int isWordComplete(char guessed[], int length) {
    for (int i = 0; i < length; i++) {
        if (!guessed[i]) {
            return 0;
        }
    }
    return 1;
}

```

```

int main() {
    char word[] = "passport";
    int length = strlen(word);
    char guessed[length];
    memset(guessed, 0, sizeof(guessed));
    int chances = 3;
    char guess;
    int correctGuess;

    printf("Welcome to Hangman Game!\n");
    printf("You have %d chances to guess the word.\n", chances);

    while (chances > 0) {
        printf("\nWord: ");
        displayWord(word, guessed, length);
    }
}

```

```
printf("Enter your guess (a single character): ");
scanf(" %c", &guess);
```

```
correctGuess = 0;
for (int i = 0; i < length; i++) {
    if (word[i] == guess && !guessed[i]) {
        guessed[i] = 1;
        correctGuess = 1;
    }
}
```

```
if (correctGuess) {
    printf("Good job! '%c' is correct.\n", guess);
} else {
    chances--;
    printf("Sorry! '%c' is not in the word. You have %d chances left.\n",
        guess, chances);
}
```

```
if (isWordComplete(guessed, length)) {
    printf("\nCongratulations! You guessed the word: %s\n", word);
    printf("The Man survives!\n");
    return 0;
}
}
```

```
printf("\nYou lost! The word was: %s\n", word);
printf("The Man gets hanged!\n");
return 0;
}
```

```

void displayWord(char word[], char guessed[], int length) {
    for (int i = 0; i < length; i++) {
        if (guessed[i]) {
            printf("%c ", word[i]);
        } else {
            printf("_ ");
        }
    }
    printf("\n");
}

int isWordComplete(char guessed[], int length) {
    for (int i = 0; i < length; i++) {
        if (!guessed[i]) {
            return 0;
        }
    }
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int main() {
    char word[] = "passport";
    int length = strlen(word);
    char guessed[length];
    memset(guessed, 0, sizeof(guessed));
    int chances = 3;
    char guess;
    int correctGuess;

    printf("Welcome to Hangman Game!\n");
    printf("You have %d chances to guess the word.\n", chances);

    while (chances > 0) {
        printf("\nWord: ");
        displayWord(word, guessed, length);

        printf("Enter your guess (a single character): ");
        scanf(" %c", &guess);

```

```

        correctGuess = 0;
        for (int i = 0; i < length; i++) {
            if (word[i] == guess && !guessed[i]) {
                guessed[i] = 1;
                correctGuess = 1;
            }
        }

        if (correctGuess) {
            printf("Good job! '%c' is correct.\n", guess);
        } else {
            chances--;
            printf("Sorry! '%c' is not in the word. You have %d chances left.\n",
                guess, chances);
        }

        if (isWordComplete(guessed, length)) {
            printf("\nCongratulations! You guessed the word: %s\n", word);
            printf("The Man survives!\n");
            return 0;
        }
    }

    printf("\nYou lost! The word was: %s\n", word);
    printf("The Man gets hanged!\n");
    return 0;
}

```