## 1. Cloud Strike

```
#include <stdio.h>
#include <string.h>
#include <ctype.h>
#define MAX_LENGTH 100
int ppassword(char *password) {
  int total = 0, i, u = 0, l = 0, d = 0, s = 0;
  if (strlen(password) >= 8)
    total++;
  for (i = 0; password[i] != '\0'; i++) {
    if (isupper(password[i]))
       u = 1;
    else if (islower(password[i]))
       l = 1;
    else if (isdigit(password[i]))
       d = 1;
    else
       s = 1;
  }
  total += u + l + d + s;
  return total;
}
```

```
void vulnerability(char *password) {
  if (strlen(password) < 8)
    printf("Password is too short\n");
  if (strpbrk(password, "ABCDEFGHIJKLMNOPQRSTUVWXYZ") == NULL)
    printf("No uppercase letter\n");
  if (strpbrk(password, "abcdefghijklmnopgrstuvwxyz") == NULL)
    printf("No lowercase letter\n");
  if (strpbrk(password, "0123456789") == NULL)
    printf("No digits\n");
  if (strpbrk(password, "!@#$%^&*() +{}|:>?<,./;[]\\/-=") == NULL)
    printf("No special character\n");
}
void file() {
  FILE *file = fopen("credential.txt", "r");
  if (!file) {
    printf("Error: Unable to open file.\n");
    return;
  }
  char line[MAX_LENGTH];
  printf("Compromised Credentials:\n");
  while (fgets(line, sizeof(line), file)) {
    char user[MAX_LENGTH], password[MAX_LENGTH];
    if (sscanf(line, "%99[^:]: %99[^\n]", user, password) == 2) {
      printf("User: %s, Password: %s\n", user, password);
```

```
printf("Password Strength: ");
       int total = ppassword(password);
       printf(total \le 2 ? "Weak\n" : (total == 3 ? "Moderate\n" : "Strong\n"));
       printf("Identified Vulnerabilities:\n");
       vulnerability(password);
       printf("\n");
    } else {
       printf("Error: Invalid file format.\n");
    }
  }
  fclose(file);
}
int main() {
  file();
  return 0;
}
```