Submitted by : Yarra Khyathisree
AP23110010215
CSE-A

Q. Write a code in C language to take the input of the name of student, date of birth of student in the form of DD-MM-YYYY, the username of student which should be only 8 to 12 characters, should only contain lowercase characters with at least special characters (_ or .) and should not match with the name of student. The password which should be of 8 to 15 characters and should contain at least one capital character one small character one special character one number character and not match with the name, date of birth, username of the student and upon satisfying the given requirements print the given details.

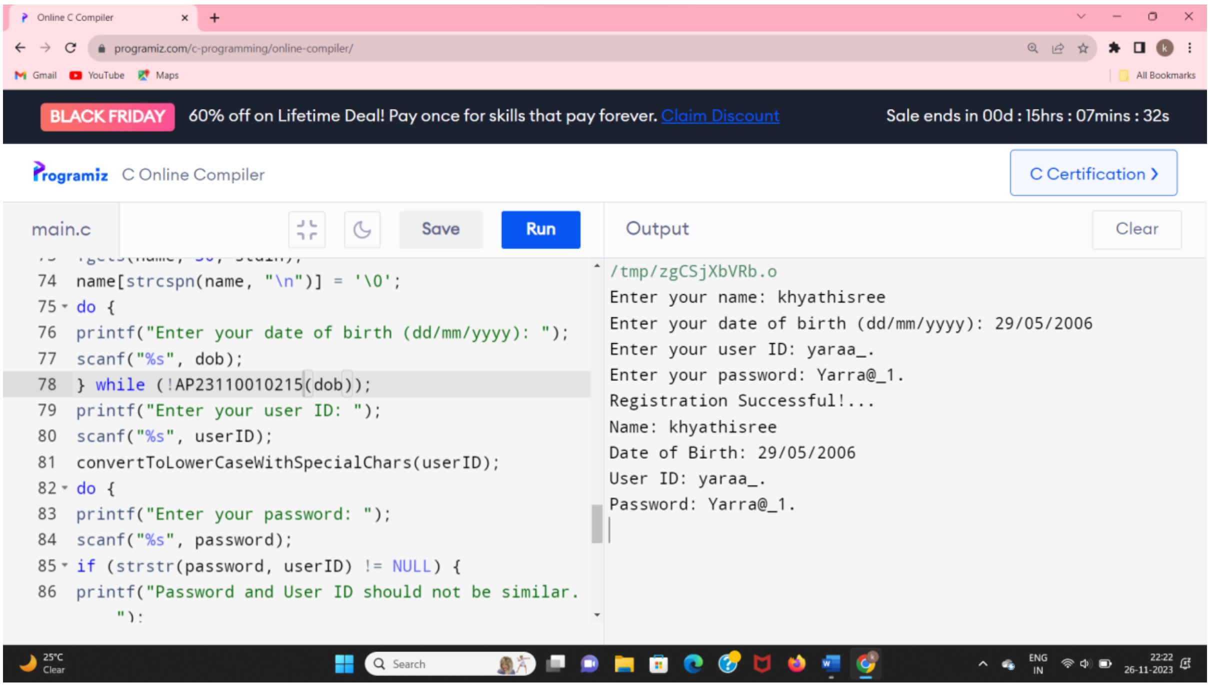
```
#include <stdio.h>
#include <string.h>
#include <ctype.h>
// Function name AP23110010215
int AP23110010215(char *khyathisree) {
int day, month, year;
if (sscanf(khyathisree, "%d/%d/%d", &day, &month, &year) == 3) {
if (day >= 1 && day <= 31 && month >= 1 && month <= 12) {
return 1;
}
}
return 0;
}
void convertToLowerCaseWithSpecialChars(char *userID) {
// Check for uppercase characters and enforce lowercase with special characters
for (int i = 0; userID[i] != '\0'; i++) {
```

```
if (isupper(userID[i])) {
printf("Invalid character. Only lowercase characters are allowed.\n");
printf("Enter a valid format for User ID (lowercase, max 12 characters, at least
2 special characters . or _): ");
scanf("%s", userID);
convertToLowerCaseWithSpecialChars(userID);
return;
}
}
int specialCharCount = 0;
for (int i = 0; userID[i] != '\0' && specialCharCount < 2; i++) {
if (userID[i] == '.' || userID[i] == '_') {
specialCharCount++;
}
}
if (specialCharCount < 2 || strlen(userID) > 12) {
printf("Enter a valid format for User ID (lowercase, max 12 characters, at least
2 special characters . or _): ");
scanf("%s", userID);
convertToLowerCaseWithSpecialChars(userID);
}
}
// Function to validate password based on specified conditions
int isValidPassword(char *password, char *userID, char *userName, char *dob)
{
if (strlen(password) < 8 || strlen(password) > 20) {
return 0;
}
```

```
int hasUpperCase = 0;
for (int i = 0; password[i] != '\0'; i++) {
if (isupper(password[i])) {
hasUpperCase = 1;
break;
}
}
if (!hasUpperCase) {
return 0;
}
int hasSpecialChar = 0;
for (int i = 0; password[i] != '\0'; i++) {
if (password[i] == '.' || password[i] == '_') {
hasSpecialChar = 1;
break;
}
}
if (!hasSpecialChar) {
return 0;
}
char invalidChars[100] = "";
strcat(invalidChars, userName);
strcat(invalidChars, userID);
strcat(invalidChars, dob);
if (strstr(password, invalidChars) != NULL) {
return 0;
}
return 1;
}
void getUserInfo(char *name, char *dob, char *userID, char *password) {
printf("Enter your name: ");
fgets(name, 30, stdin);
name[strcspn(name, "\n")] = '\0';
do {
printf("Enter your date of birth (dd/mm/yyyy): ");
scanf("%s", dob);
} while (!AP23110010215(dob));
printf("Enter your user ID: ");
scanf("%s", userID);
convertToLowerCaseWithSpecialChars(userID);
do {
printf("Enter your password: ");
scanf("%s", password);
if (strstr(password, userID) != NULL) {
printf("Password and User ID should not be similar. ");
} else if (!isValidPassword(password, userID, name, dob)) {
printf("Enter a valid password (without using characters from name, user ID, or
date of birth).\n");
}
} while (strstr(password, userID) != NULL || !isValidPassword(password,
userID, name, dob));
```

```
}
int main() {
char userName[30];
char dob[11];
char userID[13];
char password[21];
getUserInfo(userName, dob, userID, password);
printf("\nRegistration Successful!...\n");
printf("Name: %s\nDate of Birth: %s\nUser ID: %s\nPassword: %s\n",
userName, dob, userID, password);
return 0;
}
```

//Output



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C Online Compiler
C Certification ›
main.c
Save
Run
Output
Clear
25°C
Clear
Search
ENG
IN
22:22
26-11-2023

```
fgets(name, 30, stdin);
name[strcspn(name, "\n")] = '\0';
do {
printf("Enter your date of birth (dd/mm/yyyy): ");
scanf("%s", dob);
} while (!AP23110010215(dob));
printf("Enter your user ID: ");
scanf("%s", userID);
convertToLowerCaseWithSpecialChars(userID);
do {
printf("Enter your password: ");
scanf("%s", password);
if (strstr(password, userID) != NULL) {
printf("Password and User ID should not be similar.
    ");
```

```
/tmp/zgCSjXbVRb.o
Enter your name: khyathisree
Enter your date of birth (dd/mm/yyyy): 29/05/2006
Enter your user ID: yaraa_.
Enter your password: Yarra@_1.
Registration Successful!...
Name: khyathisree
Date of Birth: 29/05/2006
User ID: yaraa_.
Password: Yarra@_1.
```