**QUIZ-2**

1. **Get three values x, y, z and write a program to print 1 if x is the middle value, 2 if y is the middle value and 3 if z is the middle value. Assume that all three variables (x, y, z) are distinct and have different values.**

**Program:**

#include <stdio.h>

int main() {

int x, y, z;

printf("Enter the value of x: ");

scanf("%d", &x);

printf("Enter the value of y: ");

scanf("%d", &y);

printf("Enter the value of z: ");

scanf("%d", &z);

if ((y < x && x < z) || (z < x && x < y)) {

printf("1\n");

} else if ((x < y && y < z) || (z < y && y < x)) {

printf("2\n");

} else {

printf("3\n");

}

return 0;

}

1. **A password is said to be strong if it satisfies the following criteria:**

**Program:**

#include <stdio.h>

#include <stdbool.h>

#include <ctype.h>

int main() {

char password[10];

printf("Enter the password: ");

scanf("%s", password);

bool lowercase = false, uppercase = false, special\_char = false, digit = false;

for (int i = 0; password[i] != '\0'; ++i) {

if (islower(password[i])) {

lowercase = true;

} else if (isupper(password[i])) {

uppercase = true;

} else if (strchr("!@#$%^&\*()-+", password[i]) != NULL) {

special\_char = true;

} else if (isdigit(password[i])) {

digit = true;

}

}

if (lowercase && uppercase && special\_char && digit && strlen(password) >= 8) {

printf("Strong password\n");

} else {

printf("Weak password\n");

}

}

1. **Write a program that calculates whether the firm can finish the project on time and how many hours more are needed or left.**

**Program:**

#include <stdio.h>

int main() {

int total\_hours\_need, num\_days, num\_workers;

printf("Enter total hours needed, number of days, and number of workers: ");

scanf("%d %d %d", &total\_hours\_need, &num\_days, &num\_workers);

float total\_working\_hours = (num\_days - 0.1 \* num\_days) \* num\_workers \* 10;

if (total\_working\_hours >= total\_hours\_needed) {

printf("Yes! %.2f hours left.\n", total\_working\_hours - total\_hours\_needed);

} else {

printf("Not enough time! %.2f hours needed.\n", total\_hours\_need - total\_working\_hours);

}

return 0;

}