# PRACTICAL 4

1) int main() { int number;

printf("Enter an integer: "); scanf("%d", &number);

if (number % 2 == 0) { printf("%d is an even number.\n", number);

} else {

printf("%d is an odd number.\n", number);

}

int main() { int number;

printf("Enter an integer: "); scanf("%d", &number);

switch (number % 2) {

case 0:

printf("%d is an even number.\n", number);

break; case 1:

printf("%d is an odd number.\n", number);

break;

}

2) int main() { int choice;

float num1, num2, result;

printf("=== Menu ===\n"); printf("1. Addition\n"); printf("2. Subtraction\n"); printf("3. Multiplication\n"); printf("4. Division\n"); printf("Enter your choice (1-4): "); scanf("%d", &choice);

printf("Enter the first number: "); scanf("%f", &num1);

printf("Enter the second number: "); scanf("%f", &num2);

switch (choice) {

case 1:

result = num1 + num2; printf("Result: %.2f\n", result); break; case 2:

result = num1 - num2; printf("Result: %.2f\n", result);

break; case 3: result = num1 \* num2; printf("Result: %.2f\n", result); break; case 4:

if (num2 != 0) { result = num1 / num2; printf("Result: %.2f\n", result);

} else {

printf("Error: Division by zero is not allowed.\n");

}

break; default: printf("Invalid choice.\n");

break;

}

3)

#define PI 3.14159

int main() { int choice; float radius;

printf("=== Menu ===\n"); printf("1. Calculate Circumference of a Circle\n"); printf("2. Calculate Area of a Circle\n"); printf("3. Calculate Volume of a Sphere\n"); printf("Enter your choice (1-3): "); scanf("%d", &choice);

printf("Enter the radius: "); scanf("%f", &radius);

switch (choice) { case 1: {

float circumference = 2 \* PI \* radius; printf("Circumference of the circle: %.2f\n", circumference);

break;

}

case 2: {

float area = PI \* pow(radius, 2); printf("Area of the circle: %.2f\n", area);

break;

}

case 3: {

float volume = (4.0 / 3.0) \* PI \* pow(radius, 3); printf("Volume of the sphere: %.2f\n", volume);

break;

}

default: printf("Invalid choice.\n"); break;

}

4) int main() { char letter;

printf("Enter a letter: ");

scanf("%c", &letter);

switch (letter) {

case 'a': case 'A': case 'e': case 'E': case 'i': case 'I': case 'o': case 'O': case 'u': case 'U': printf("%c is a vowel.\n", letter); break; default: printf("%c is not a vowel.\n", letter);

break;

}

5) int main() { int month;

printf("Enter the month number (1-12): "); scanf("%d", &month);

switch (month) {

case 1:

printf("January has 31 days.\n");

break; case 2:

printf("February has 28 days.\n");

break; case 3:

printf("March has 31 days.\n");

break; case 4: printf("April has 30 days.\n");

break; case 5:

printf("May has 31 days.\n");

break; case 6: printf("June has 30 days.\n"); break; case 7: printf("July has 31 days.\n");

break; case 8:

printf("August has 31 days.\n");

break; case 9:

printf("September has 30 days.\n");

break; case 10: printf("October has 31 days.\n");

break;

case 11:

printf("November has 30 days.\n");

break; case 12:

printf("December has 31 days.\n");

break; default:

printf("Invalid month number.\n");

break;

}