Assignment - 2 Solutions

# 1. Program to print unit digit of a given number

#include <stdio.h>  
int main() {  
 int number;  
 printf("Enter a number: ");  
 scanf("%d", &number);  
 int unit\_digit = number % 10;  
 printf("Unit digit is: %d\n", unit\_digit);  
 return 0;  
}

# 2. Program to print a given number without its last digit

#include <stdio.h>  
int main() {  
 int number;  
 printf("Enter a number: ");  
 scanf("%d", &number);  
 int result = number / 10;  
 printf("Number without the last digit is: %d\n", result);  
 return 0;  
}

# 3. Program to swap values of two int variables

#include <stdio.h>  
int main() {  
 int a, b, temp;  
 printf("Enter two numbers: ");  
 scanf("%d %d", &a, &b);  
 // Swapping  
 temp = a;  
 a = b;  
 b = temp;  
 printf("After swapping: a = %d, b = %d\n", a, b);  
 return 0;  
}

# 4. Program to swap values of two int variables without using a third variable

#include <stdio.h>  
int main() {  
 int a, b;  
 printf("Enter two numbers: ");  
 scanf("%d %d", &a, &b);  
 // Swapping without a third variable  
 a = a + b;  
 b = a - b;  
 a = a - b;  
 printf("After swapping: a = %d, b = %d\n", a, b);  
 return 0;  
}

# 5. Program to input a three-digit number and display the sum of the digits

#include <stdio.h>  
int main() {  
 int number, sum = 0;  
 printf("Enter a three-digit number: ");  
 scanf("%d", &number);  
 // Extracting digits and summing  
 sum += number % 10; // Unit digit  
 number /= 10;  
 sum += number % 10; // Tens digit  
 number /= 10;  
 sum += number % 10; // Hundreds digit  
 printf("Sum of digits: %d\n", sum);  
 return 0;  
}

# 6. Program which takes a character as an input and displays its ASCII code

#include <stdio.h>  
int main() {  
 char ch;  
 printf("Enter a character: ");  
 scanf("%c", &ch);  
 printf("ASCII value of '%c' is: %d\n", ch, ch);  
 return 0;  
}

# 7. Program to find the position of first 1 in LSB

#include <stdio.h>  
int main() {  
 int number;  
 printf("Enter a number: ");  
 scanf("%d", &number);  
 int position = 1;  
 while ((number & 1) == 0) {  
 number >>= 1;  
 position++;  
 }  
 printf("The position of the first 1 in LSB is: %d\n", position);  
 return 0;  
}

# 8. Program to check whether the given number is even or odd using a bitwise operator

#include <stdio.h>  
int main() {  
 int number;  
 printf("Enter a number: ");  
 scanf("%d", &number);  
 if (number & 1) {  
 printf("Odd\n");  
 } else {  
 printf("Even\n");  
 }  
 return 0;  
}

# 9. Program to print the size of an int, a float, a char, and a double type variable

#include <stdio.h>  
int main() {  
 printf("Size of int: %zu bytes\n", sizeof(int));  
 printf("Size of float: %zu bytes\n", sizeof(float));  
 printf("Size of char: %zu bytes\n", sizeof(char));  
 printf("Size of double: %zu bytes\n", sizeof(double));  
 return 0;  
}

# 10. Program to make the last digit of a number stored in a variable as zero

#include <stdio.h>  
int main() {  
 int number;  
 printf("Enter a number: ");  
 scanf("%d", &number);  
 number = number / 10 \* 10;  
 printf("Number with last digit as zero: %d\n", number);  
 return 0;  
}

# 11. Program to input a number and a digit, then append the digit to the number

#include <stdio.h>  
int main() {  
 int number, digit;  
 printf("Enter the number: ");  
 scanf("%d", &number);  
 printf("Enter the digit to append: ");  
 scanf("%d", &digit);  
 int result = number \* 10 + digit;  
 printf("Resulting number: %d\n", result);  
 return 0;  
}

# 12. Program to convert INR to USD

#include <stdio.h>  
int main() {  
 float inr, usd;  
 float exchange\_rate = 76.23;  
 printf("Enter amount in INR: ");  
 scanf("%f", &inr);  
 usd = inr / exchange\_rate;  
 printf("Amount in USD: %.2f\n", usd);  
 return 0;  
}

# 13. Program to rotate the digits of a three-digit number towards the right

#include <stdio.h>  
int main() {  
 int number, rotated;  
 printf("Enter a three-digit number: ");  
 scanf("%d", &number);  
 rotated = (number % 10) \* 100 + (number / 10);  
 printf("Number after rotating digits: %d\n", rotated);  
 return 0;  
}