Lab 05

Name: Fawad Iqbal RegNo: FA21-BSE-012

**Task 1:**

#include <iostream>

#include <cstdlib>

#include <climits>

int main(int argc, char \*argv[]) {

if (argc < 2) {

std::cerr << "Usage: " << argv[0] << " <number1> <number2> ... <numberN>" << std::endl;

return 1;

}

int min = INT\_MAX;

int max = INT\_MIN;

for (int i = 1; i < argc; i++) {

int number = std::atoi(argv[i]);

if (number < min) {

min = number;

}

if (number > max) {

max = number;

}

}

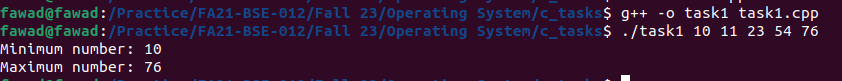
std::cout << "Minimum number: " << min << std::endl;

std::cout << "Maximum number: " << max << std::endl;

return 0;

}

**OUTPUT TASK01:**



**Task 2:**

#include <iostream>

bool isPalindrome(int number) {

int originalNumber = number;

int reversedNumber = 0;

while (number > 0) {

int digit = number % 10;

reversedNumber = reversedNumber \* 10 + digit;

number /= 10;

}

return originalNumber == reversedNumber;

}

int main() {

int num;

std::cout << "Enter a number: ";

std::cin >> num;

if (isPalindrome(num)) {

std::cout << num << " is a palindrome." << std::endl;

} else {

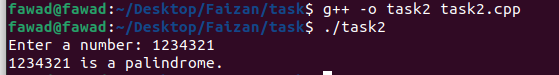
std::cout << num << " is not a palindrome." << std::endl;

}

return 0;

}

**OUTPUT TASK02:**

****

**Task 03:**

#include <iostream>

#include <cstdlib>

bool isPrime(int number) {

if (number <= 1)

return false;

if (number <= 3)

return true;

if (number % 2 == 0 || number % 3 == 0)

return false;

for (int i = 5; i \* i <= number; i += 6) {

if (number % i == 0 || number % (i + 2) == 0) {

return false;

}

}

return true;

}

int main() {

const int arraySize = 1000;

int randomNumbers[arraySize];

int primeCount = 0;

for (int i = 0; i < arraySize; i++) {

randomNumbers[i] = std::rand() % 99 + 2; // Random number between 2 and 100

if (isPrime(randomNumbers[i])) {

primeCount++;

}

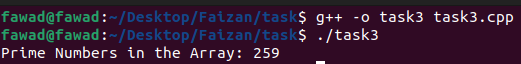
}

std::cout << "Prime Numbers in the Array: " << primeCount << std::endl;

return 0;

}

**OUTPUT TASK03:**

****