

## **COA Open Ended Lab Exam (SE,Batch 2023F,3<sup>rd</sup> Semester, Section “A”)**

<b><u>Name</u></b>	<b><u>Roll No #</u></b>	<b><u>Object/Objective</u></b>
Muhammad Talha	2023F-BSE-002	Creating an assembly language program in Mars, which checks whether the given string is palindrome by comparing characters from both ends (Palindrome checker).
Mobariz Hassan	2023F-BSE-009	Write a MIPS program that takes a percentage of 5 subject as input and outputs a grade.
Sania Zehra	2023F-BSE-004	Write a MIPS program that accepts an integer from the user and calculates its square. Display the result.
Sara Abbasi	2023F-BSE-019	Calculate Area of a Rectangle: Write a MIPS program that accepts the length and width of a rectangle from the user and calculates and displays the area (Area = length × width).
Zainab Ahmed	2023F-BSE-044	Convert Kilograms to Pounds: Write a MIPS program that accepts a weight in kilograms from the user and converts it to pounds using the formula. $P = k \times 2.20462$ , where k is the weight in kilograms, and displays the result.
Laiba Jaweed	2023F-BSE-015	Write a MIPS program that accepts a temperature in Celsius from the user, converts it to Fahrenheit using the formula. $F = 9/5 \times C + 32$ , and displays the result in Fahrenheit.
Hassam Uddin	2023F-BSE-011	A program that takes integer from user and give the table of that integer.
Khurram Raza	2023F-BSE-006	To print a sequence of numbers in reverse order, starting from a specified number and decrementing until a given limit is reached.
Abiha Omer	2023F-BSE-277	To find the average of numbers
Arshad Sheikh	2023F-BSE-024	Program to generate Fibonacci series.
Umar Shaikh	2023F-BSE-025	create program for password verification.
Maheen Mughal	2023F-BSE-232	Design and implement a calculator with memory using MIPS assembly language.
Aijaz Qadri	2023F-BSE-017	To develop a MIPS assembly program on MARS that computes the LCM of two integers.

Subhan Ahmed	2023F-BSE-031	Suppose number is 27. And we type 80 so it will say go lower or if we type 20 it will say go higher, until we reach number 27.
Abdul Wasay	2023F-BSE-001	Write a MIPS assembly program to check whether a given number is an even or odd number.
Sheikh Maaz	2023F-BSE-007	calculate the area of a circle using the MIPS assembly language. The program takes the radius as input, computes the area using the formula $\text{Area} = \pi \times \text{radius}^2$ and displays the result.
Muzammil Ahmed	2023F-BSE-045	To create a GCD calculator by using recursion for Extended Euclidean Theorem.
Inza	2023F-BSE-274	Combine Arithmetic Instructions in a Single Program.
Laraib Bashir	2023F-BSE-249	Square and cube of no input by user.
Aisha Mahmood	2023F-BSE-012	Write a program that takes a number n and prints its multiplication table upto $n \times 10$ . Display its result.
Junaid Saleem	2023F-BSE-351	MIPS assembly program for a Ludo dice game for four players. Each player takes turns rolling the dice. If they roll a 6, they roll again. If a player rolls 6 three times in a row, the program stops.
Hammad Ali Shah	2023F-BSE-037	Write a program to print all prime numbers up to a given number n.
Umer Farooq	2023F-BSE-029	Write a MIPS assembly language program that calculates the sum of all positive integers less than or equal to a user-input integer NNN.
Summamah Siddiqui	2023F-BSE-027	Find the Largest of Three Numbers. Write a program to find the largest of three integers.
Arbab Ali Khan	2023F-BSE-005	Calculate square root. Write a program to approximate the square root of an integer.
Syed Hassan	2023F-BSE-302	Reverse a Number. Create a program that takes an integer input and prints its reverse. For example, for 123, it should print 321.

Sheikh Fatima	2023F-BSE-172	Implement a MIPS assembly program that prompts the user for a non-negative integer and calculates its factorial using a loop or recursion.
Abdullah Jalal	2023F-BSE-205	Double the Value of a Number. Description: Multiply a given number by 2 and print the result.
Muhammad Hashir	2023F-BSE-178	Check if a Number is Divisible by 3 or 5. Description: Check if a number is divisible by 3, 5, or both, and print the result.
Mussab Kaleem	2023F-BSE-202	Print a Simple Triangle Pattern. Description: Print a simple triangle pattern using asterisks (*).
Sufiyaan Hussain	2023F-BSE-016	To demonstrate the use of conditional branching, input/output operations, and comparison instructions in MIPS assembly language by finding the maximum value among four user-provided integers.
Shahzaib Khurshaidi	2023F-BSE-169	Prime Number Checker: Exploring MIPS Assembly Logic.
Taha Waseem	2023F-BSE-297	Find the Smallest Element in an Array. Identify the smallest element in an array of integers.
Kashaf Khan	2023F-BSE-248	Find the Length of a String. Description: Write a program to find the length of a given string (without using built-in functions).
Affan Jahanzaib	2023F-BSE-021	Calculate the sum of the first N Odd numbers using MARS MIPS Assembly language.
Hammad Kashmiri	2023F-BSE-164	Leap Year Checker: Determine whether a given year is a leap year.
Umar Ali Khan	2023F-BSE-040	Applying Debugging Techniques for Efficient Code Analysis. To learn how to use debugging utilities and tools, such as MARS, to analyze, execute, and debug MIPS assembly language programs, ensuring efficient and error-free code.
Muhammad Anas	2023F-BSE-305	To implement an integer division operation using MIPS assembly language and understand how division works at the assembly level.
Jazbia Ishtiaque	2023F-BSE-310	To write a program that displays the ASCII value of a given character entered by the user.

Abdullah	2021F-BSE-335	Design and implement a MIPS Assembly program to create a simple calculator that performs addition, multiplication, or division on two positive integers entered by the user. Use conditional branching (blez, bnez) to validate inputs and to choose the operation based on the user's choice. The program should display the result of the selected operation.
Umme Habiba	2023F-BSE-392	To implement a MIPS program that calculates the total cost of items purchased based on user input for quantity and price, and applies a discount if the total exceeds a certain limit.
Sameer Raza	2023F-BSE-035	Create a basic ATM program where a user can check their balance, deposit money, and withdraw money.
Hassan Akhtar	2023F-BSE-039	Write a MIPS assembly program that takes a string of characters as input and converts all uppercase alphabetic characters (A-Z) to their corresponding lowercase characters (a-z). The program should then display the modified string with the uppercase letters converted to lowercase.
Shahwaiz Rafiq	2023F-BSE-061	Create a program to count the number of words in a user-provided string.
Junaid Ahmed	2023F-BSE-066	Write a program to take a string and find the first character that is repeated.
Shayaan Khan	2023F-BSE-013	Write a MIPS program that calculates the sum of all elements in a given array.
Bilal Hassan	2023F-BSE-018	Develop a MIPS Assembly program that reads a string from the user and counts the number of vowels in the string.