**Lab Exercise 1: Basic CAST Usage**

**Task:**

Convert the integer 100 into a **CHAR(5)** data type.

**Solution:**

SELECT CAST(100 AS CHAR(5)) AS converted\_value;

**Lab Exercise 2: Basic CONVERT Usage**

**Task:**

Convert the floating-point number 123.45 into a **CHAR(10)** data type.

**Solution:**

SELECT CONVERT(123.45, CHAR(10)) AS converted\_value;

**Lab Exercise 3: Convert String to Integer**

**Task:**

Convert the string '500' into an **INTEGER** type and multiply it by 2.

**Solution:**

SELECT CAST('500' AS UNSIGNED INTEGER) \* 2 AS result;

**Lab Exercise 4: Convert Date to String**

**Task:**

Convert the current date (CURDATE()) to a **CHAR(20)** type.

**Solution:**

SELECT CAST(CURDATE() AS CHAR(20)) AS converted\_date;

**Lab Exercise 5: Convert String to Decimal**

**Task:**

Convert the string '1234.5678' into a **DECIMAL(8,2)** type.

**Solution:**

SELECT CAST('1234.5678' AS DECIMAL(8,2)) AS converted\_value;

**Lab Exercise 6: Convert String to Time**

**Task:**

Convert the string '15:30:45' into a **TIME** data type.

**Solution:**

SELECT CAST('15:30:45' AS TIME) AS converted\_time;

**Lab Exercise 7: Convert String to Date**

**Task:**

Convert the string '2024-02-04' into a **DATE** data type.

**Solution:**

SELECT CAST('2024-02-04' AS DATE) AS converted\_date;

**Lab Exercise 8: Convert Integer to Binary String**

**Task:**

Convert the number 255 into a **BINARY(4)** type.

**Solution:**

SELECT CAST(255 AS BINARY(4)) AS binary\_value;

**Lab Exercise 9: Convert String to JSON**

**Task:**

Convert the string '{ "name": "Alice", "age": 25 }' into a **JSON** data type.

**Solution:**

SELECT CAST('{ "name": "Alice", "age": 25 }' AS JSON) AS json\_value;

**Lab Exercise 10: Handling Invalid Cast**

**Task:**

Try to cast the string 'abc' to an **INTEGER**. What happens?

**Solution:**

SELECT CAST('abc' AS UNSIGNED) AS converted\_value;

**Explanation:**  
Since 'abc' is not a valid number, MySQL will return 0 when casting to an integer.