**TypeScript Training - Practical Assignments**

**Task-1: Setup the environment for TypeScript**

**Output :**

Text

Description automatically generated

Text

Description automatically generated

**Task-2:**

**Create a typescript program to display the employee details as follows. Declare the required number of variables by using datatypes available in typescript.**

**Use string templates to preset all details in single line.**

**Output :**

Text

Description automatically generated

**3. Question**

**What is purpose of Array map() method in JavaScript? How to use it?**

**What is purpose of Array find() and findIndex() method in JavaScript? How to use it? filter() method?**

**Answer :**

The map() method **creates a new array populated with the results of calling a provided function on every element in the calling array.**

const array1 = [1, 4, 9, 16];

// pass a function to map

const map1 = array1.map(x => x \* 2);

console.log(map1);

The find() method **returns the first element in the provided array that satisfies the provided testing function**. If no values satisfy the testing function, undefined is returned.

The findIndex() method **executes a function for each array element**. The findIndex() method returns the index (position) of the first element that passes a test. The findIndex() method returns -1 if no match is found.

function isOdd(element, index, array) {

return (element%2 == 1);

}

print([4, 6, 7, 12].findIndex(isOdd));

Expected Output : 2

The filter() method **returns the matched values in an array from the collection**.

const words = ['spray', 'limit', 'elite', 'exuberant', 'destruction', 'present'];

const result = words.filter(word => word.length > 6);

console.log(result);

// expected output: Array ["exuberant", "destruction", "present