**TASK 2**

**Q.2) Write A Write Up On Difference Between Copy By Value And Copy By Reference**

I) The Original Variable Is Not Modified On Changes In Other Variables Whereas In Copy By Reference The Original Variable Gets Modified On Changes In Other Variables

ii) Actual And Copied Variables Will Be Created In Different Memory Locations Whereas In Copy By Reference Actual And Copied Variables Are Created In The Same Memory Location.

iii) On Passing Variables In A Function Any Changes Made In The Passed Variable Will Not Affect The Original One Whereas In Copy By Reference On Passing Variables In A Function Any Changes Made In The Passed Parameter Will Update The Original Variable’s Reference Too

**Q.3) How To Copy By Value A Composite Data Type (Objects +Array)**

I)Using Spread

**Spread Operator**   Allows An Iterable to Expand In Places Where 0+ Arguments Are Expected. It Is Mostly Used In The Variable Array Where There Is More Than 1 Values Are Expected. It Allows Us The Privilege To Obtain A List Of Parameters From An Array. Using Spread Will Clone Your Object. Note This Will Be A Shallow Copy.

Ii) Using Object.Assign ()

The **Object.Assign ()** Method Copies All Enumerable Own Properties From One Or More *Source Objects* To A *Target* Object. It Returns The Target Object. Note This Will Be A Shallow Copy

Iii)Using JSON.Parse() And JSON.Stringify()

The JSON Object, Available In All Modern Browsers, Has Two Useful Methods To Deal With JSON-Formatted Content: Parse And Stringify. JSON.parse() Takes A JSON String And Transforms It Into A JavaScript Object. JSON.Stringify() Takes A JavaScript Object And Transforms It Into A JSON String.Using JSON.parse() And JSON.Stringify() For Copy Performs Deep Copy .