**IS312 – Web Design and Programming**

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**Quarter: Fall 2022**

**PE07 Lab Report**

Please complete this document per the lab instructions.

Task #1 - 2 Source Code:

interface Identity<T, U>

{

    value: T;

    message: U;

}

Task #1 - 4 Source Code:

var object1: Identity<number, string> =

{

    value: 5,

    message: "Hello World"

}

var object2: Identity<string, number> =

{

    value: "Hello World",

    message: 5

}

Task #2 - 1 Source Code:

interface ProcessIdentity<T, U>

{

    (value: T, message: U): T;

}

Task #2 - 3 Source Code:

function processIdentity<T, U>(value: T, message: U): T

{

    console.log(message);

    return value;

}

Task #2 – 7 Response to prompts:

var processor1: ProcessIdentity<number, string> = processIdentity;

var processor2: ProcessIdentity<string, number> = processIdentity;

Task #2 – 9 Response to prompts:

var returnNumber1 = processor1(5, "Hello World");

var returnNumber2 = processor2("Hello World", 5);

Task #3 – 2 Source Code:

class processIdentity<X,Y> implements ProcessIdentity<X,Y>

{

    value : X;

    message : Y;

    constructor(value: X, message:Y)

    {

        this.value = value;

        this.message = message;

    }

    process():X

    {

      return this.value;

    }

}

Task #3 – 6 Response to prompts:

interface ProcessIdentity<T,U>

{

    value:T;

    message:U;

    process(): T;

}

Task #3 – 7 Source Code:

var processor = new processIdentity(5, "Hello World");

console.log(processor.process());

processor.value = 5;

console.log(processor.process());

Task #4 – 1 Source Code:

class processIdentity<T,U>

{

    private value:T;

    private message:U;

    constructor(value: T, message:U)

    {

        this.value = value;

        this.message = message;

    }

    getIdentity():T

    {

      console.log(this.message);

      return this.value;

    }

}

Task #4 – 5 Response to prompts:

var processor = new processIdentity(5,"Hello World");

console.log(processor.getIdentity());

Once you have completed this document please submit per instructions.