IS113 Web Application Development 1

Lab Test 1 Briefing

G4/G5

K. Shim

School of
Information Systems

2020-21 Term 2 Lab Test 1

- **Date**: 2-MARCH-2021 (Tuesday) → **Week 8**

- **Time**: 1:30 PM – 3:00 PM *(90 minutes)*

- **20% grade component**

- **Individual assessment**

- **Conducted ON CAMPUS in a Seminar Room**

G4	School of Economics/School of Social Sciences	SOE/SOSS Seminar Room 3-5
G5	School of Economics/School of Social Sciences	SOE/SOSS Seminar Room 3-6

- **NO make-up**
  - If you miss Lab Test 1, you will have to file for "I" (incomplete) grade *(if you meet attendance and grade criteria)*.

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Before Lab Test

- Arrive **10 minutes** prior to the official Lab Test start time
- Ensure **WAMP** starts successfully
- Ensure your **PHP manual** is installed for **offline use**
  - Go to: https://devdocs.io
  - Add **HTML, PHP**
  - Download for **offline use**
- **NO** **WI-FI** allowed during the Lab Test
- **NO** ~~**hardcopy/printed notes**~~ are allowed
- **ONLY** **softcopy notes/references** are allowed
- **Bring laptop charger**
- Use **mouse** (for efficiency) if your laptop's touchpad slows you down

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10 minutes prior to Lab Test Start

- You need to be **seated** inside the test venue.

- You need to have your **laptop** set up (charger connected) on your desk.

- Start **WAMP**

- Open **In Cognito Chrome Web Browser**
  - Go to **http://localhost/** and verify that your web server is up and running

- Open **PHP Manual** (devdocs.io)

- Put away everything **except** **laptop**, **water bottle** (if any), **mouse** (if any)
  - Other items allowed: tissues, mask (you must wear it), spectacles/glasses

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5 minutes prior to Lab Test Start

E.g. Trial Lab Test Set A

- Download **Lab Test Zip File** from **eLearn**
  - We will inform you the directory on test day
- The **zip file** is **password-protected**
  - We will release the password on test day
  - Upon release, you must open the zip file and place the files in your local **WAMP**'s **webroot**
- TURN OFF **Wi-Fi** on your laptop
  - OR, switch to **Airplane Mode**

```
www ---
    |-- LT1
        |--resources
            |-- apple.jpg
            |-- orange.jpg
            |-- pear.jpg
            |-- q1-A.html
            |-- q1-A.php
            |-- q1-B.html
            |-- q1-B.php
...
```

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5 minutes prior to Lab Test Start

- You will receive **Lab Test Script**

- Read the **General Instructions** on **Page 1**

- Check if you have **all pages** on the Test Script

- Answers written on the Test Script will NOT be graded
  - Only the digital submission (e.g. source code files) will be graded.

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@1:30 PM, Lab Test Officially *Starts*

- You are **NOT** allowed to communicate with other students
  - No written/verbal communication (offline/digital)
  - No gestures/signaling
- You will be reminded:
  - **@1:30 PM** → **Lab Test starts now**
  - **@2:30 PM** → **30 minutes left**
  - **@2:55 PM** → **5 minutes left**
  - **@3:00 PM** → **Lab Test is over now**

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During Lab Test, annotate files

For **ALL Files** where you **write your code**:
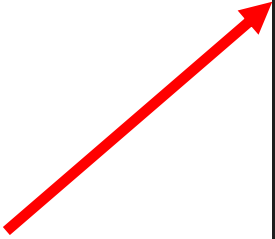
*Write **your name** and **email ID***

```
<!--

    Name:    Jong Un Kim
    Email:   jongun.kim.2020

-->
```
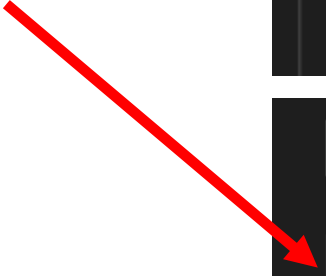
E.g. Trial Lab Test Set A

Understanding Lab Test Questions

E.g. Trial Lab Test Set A

Question 1 (Difficulty Level: */*) ⬅ Question Difficulty levels

Given:
- `q1-A.html`
- `q1-A.php`
- `q1-B.html`
- `q1-B.php`

⬅ Files to be used in this question.
Some files are noted with
(DO NOT MODIFY THIS FILE)
It means that the content of the file cannot be changed.
Do NOT modify such files! You will be penalized!

Part A (5 marks) - Difficulty Level (*) ⬅ Difficulty level for each part

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Understanding Lab Test Questions

E.g. Trial Lab Test Set A

Part A (5 marks) - Difficulty Level (*)

1. Update `q1-A.html` to include a form. The page displays as follows:

> Number 1: 2
> Number 2: 5
> Number 3: 6
> Divisor: 2
> Submit

Note: "2", "5", "6" and "2" (divisor) are values entered by the user.

Upon clicking the SUBMIT button, it submits to `q1-A.php` via HTTP POST.

2. Implement a function called `is_divisible_by($num, $n)` in `q1-A.php`. The function returns `true` if `$num` is divisible by `$n`, `false` otherwise.

3. Use the function `is_divisible_by($num, $n)` to produce the following result when the user submits the values shown above through `q1-A.html`:

> - 2 is divisible by 2: YES
> - 5 is divisible by 2: NO
> - 6 is divisible by 2: YES

HINT: Explore the use of HTML unordered list **<ul>**

Modify ONLY the files you are instructed to do so.
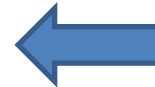
Function name and parameters must be exactly same as stated in the question.
e.g. Below function signature will be marked WRONG!
`IS_Divisible_By ($num, $n1) //` WRONG

Read all questions carefully
In this case, form is inside `q1-A.html` (#1).
When press SUBMIT button, user is taken to `q1-A.php`, which displays the results (#3).

Understanding Lab Test Questions

E.g. Trial Lab Test Set A

```php
// $students is an Array of:
//    Associative Arrays, where each Associative Array contains:
//        key (name) => value (string)
//        key (courses) => value (Array of Arrays)
$students = [
    [
        "name"    => 'Jong Un Kim',
        "courses" => [
            ['IS111', 'Intro Programming', 'MON', '1000', 1],
            ['CS102', 'Discrete Mathematics', 'TUE', '0830', 2],
            ['EE200', 'Intro to Circuits', 'TUE', '1330', 1],
            ['WRIT100', 'Writing and Reasoning', 'WED', '1000', 1],
            ['LIT380', 'Intro to Korean Literature', 'FRI', '1630', 1]
        ]
    ],
    [
        "name"    => 'Donald Trump',
        "courses" => [
            ['IS112', 'Data Management', 'TUE', '0830', 2],
            ['WRIT100', 'Writing and Reasoning', 'WED', '1000', 1],
            ['OBHR101', 'Leadership Team Building', 'WED', '1200', 2],
            ['IS113', 'Web Application Development', 'THU', '1500', 2],
            ['STAT202', 'Bayesian Logics', 'FRI', '1000', 1]
        ]
    ],
```
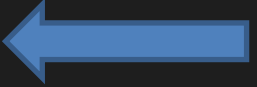
In some questions, **variables** may be given to you.

DO NOT MODIFY THEM unless we explicitly state that you're allowed to do so!

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Understanding Lab Test Questions

E.g. Trial Lab Test Set A

```
// INPUT   : $students Array
// OUTPUT  : Return an Array of student names (String)
function getStudentNames($students) {
    $arr = [];
    // Part A
    // YOUR CODE GOES HERE
}
```

Your code goes after the line
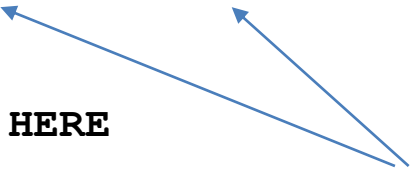"// **YOUR CODE GOES HERE**"

e.g.

```
function getStudentNames($students){
    $arr = [ ] ;
    // Part A
    // YOUR CODE GOES HERE
    . . .

     $arr[] = $students['name'];

    . . .

}
```

Do not change the function signature!

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Understanding Lab Test Questions

E.g. Trial Lab Test Set A

```html
<html>
<body>
    <form action='q3.php' method='POST'>
        Name:
        <select name='student_name'>
            <?php
                // Part A
                // YOUR CODE GOES HERE
                $student_names = getStudentNames($students); // DO NOT MODIFY THIS LINE
                / YOUR CODE CONTINUES HERE
            ?>
        </select>
        <input type='submit' value='Show Timetable' />
    </form>
```

Codes must be after this line and before ?>

Do not change this line of code

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Lab Test *Ends*

Check that:

At the **top** of all **files** that you have **edited**

```
<!--

    Name:  Jong Un Kim

    Email: jongun.kim.2020

-->
```
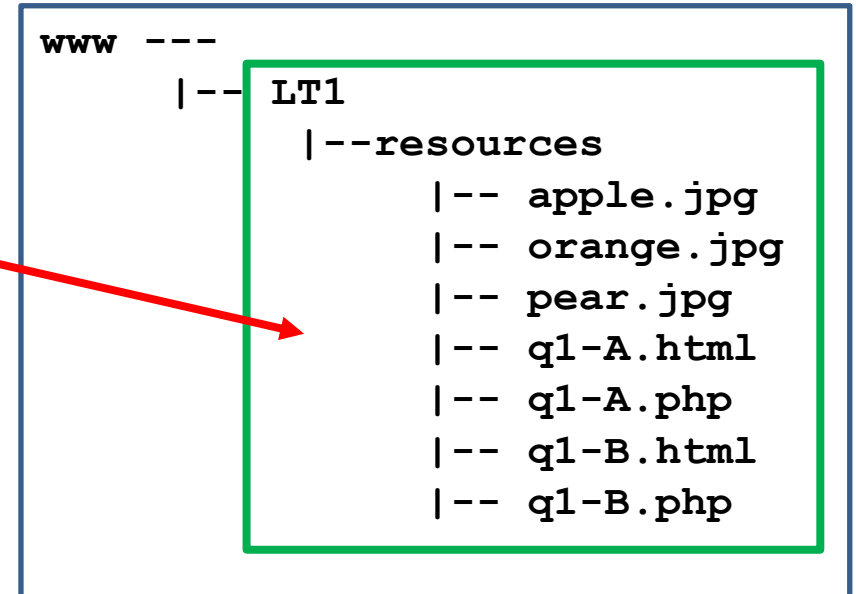
Zip up all files into:

<YOUR_SMU_EMAIL_ID>.zip

E.g. **jongun.kim.2020.zip**

Lab Test *Ends* (Step 1)

- Zip the entire **LT1** folder (**green** box) into:
  - **jongun.kim.2020.zip**
  - where **jongun.kim.2020** is **your SMU Email ID**

- Warning :
  - **Do NOT use other compression formats** (.gz, .tar, .rar)
    - If you don't use **zip** format, **this will attract 10% penalty.**
  - Name the zip file **STRICTLY** as instructed
    - **If not, this will attract 10% penalty.**

- Verify your zip file
  - Try **un-zipping** your zip file and see the content. ENSURE your zip file have ALL files.
  - If you miss any files in your submission, we will not accept late submissions of any missing files. Grading will be conducted on your originally submitted zip file.

```
www ---
     |-- LT1
         |--resources
             |-- apple.jpg
             |-- orange.jpg
             |-- pear.jpg
             |-- q1-A.html
             |-- q1-A.php
             |-- q1-B.html
             |-- q1-B.php
```

Lab Test *Ends* (Step 2)

- TURN ON **WI-FI** on your laptop
- Submit zip file into eLearn → Assignments → **Lab Test 1**
  - **Double/triple confirm that your submission was successful before you leave SR.**
  - *We will NOT accept late submissions.*