T/UDOM/2017/00633

# College of Informatics and Virtual Education

## Department of Computer Science and Engineering

## CP 311: Internet Programming and Applications II

## Test One (50 Marks)

**Part One (Bootstrap)**

a. In order to use Bootstrap, you first need to integrate it into your development environment, aka web page. Mention and explain the two different possibilities of adding bootstrap to a web page. Which method is recommended under which development environment? **(4 Marks)**

b. In developing a web page using bootstrap, there are two classes that acts as a container to contain the page contents, namely ***container*** and ***container-fluid.*** With Example explain the difference between the two classes. **(4 Marks)**

c. Bootstrap's grid system uses a series of containers, rows, and columns to layout and align content. The below example creates three equal-width columns on small, medium, large, and extra-large devices using our predefined grid classes.

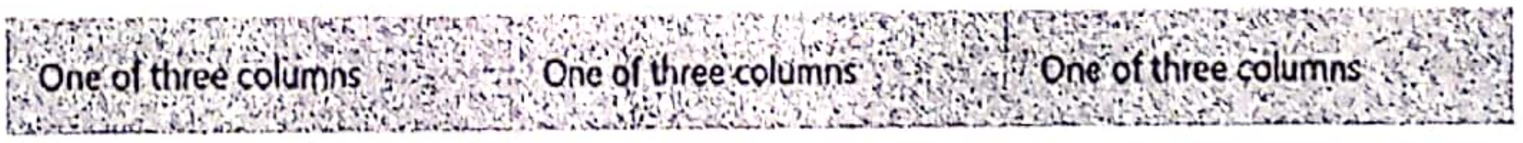



**Figure 1: Bootstrap Layout**

Use bootstrap classes to write a source code that will produce the above layout. **(5 Marks)**

d. The code below shows a bootstrap modal. Using bootstrap create a button which will trigger the given modal. **(4 Marks)**

```
<!—Bootstrap Modal-->
<div id=”ModalExample” class=”modal fade”>
  <div class=”modal-dialog”>
      <div class="modal-content">
       <div class="modal-header">
       <h4 class="modal-title">See more of this awesome website by
     logging in</h4>
       </div>
       <div class="modal-body">
          <p class="lead text-xs-center">It only takes a few seconds to
level up!</p>
          <div class="lead text-xs-center"><a class="btn btn-info"
href="/auth/register">Create      Account</a> or
       <a class="btn btn-success" href="/auth/login">Sign In</a></div>
       </div>
       <div class="modal-footer">
          :-)
       </div>
     </div><!-- /.modal-content -->
  </div><!-- /.modal-dialog -->
</div><!-- /.modal -->
```

**Part Two (Xml)**

a. Given the XML document below. Define a DTD that validates Document 1. **(5 Marks)**

**Document 1: Student**

```
<?xml version="1.0" encoding="UTF-8"?>
 <student>
```



CamScanner

```
 <firstName>Luca</firstName>
 <lastName>Rossi</lastName>
 <id>281283</id>
<plan>
<courses year="3">
      <course>
       <name> BSc.Computer Science </name>
        <shortName>BSc.CS</shortName>
        <record>
          <grade>85</grade>
            <date>13/06/2021</date>
        </record>
      </course>
      <course>
         <name>BSc.Business Information System</name>
         <shortName>BIS</shortName>
      </course>
   </courses>
 </plan>
</student>
```

b. Given the following information: -

Root element *real-estate* will contain a sequence of sub-elements *agencies, owners, properties and flats*, all with an empty content.

i. Create an XML document for the above information **(5 Marks)**

ii. Create an internal DTD for the XML document in (i) .Ensure its validity **(5 Marks)**

iii. Move the DTD in (ii) to an external file and validate the XML document again. **(3 Marks)**



CamScanner

**Part Three (PHP and MYSQL)**

a. Write PHP functions to accomplish each of the following tasks. Assume MySQL database server has been installed on the local machine and the improved version of php has been used.

i. Connect to the server with username **root** and password **cive.** **(3 Marks)**

ii. Select a database called CP 311 to be used for queries. **(2 Marks)**

iii. Execute a query to select all rows and columns from the table called ***users.*** **(4 Marks)**

iv. Get the next row from a result set $results and assign to variable $row. **(4 Marks)**

v. Close the database connection **(2 Marks)**



CamScanner

a (i) • Container is a container in bootstrap where contents of HTML aligned at centre and leave space at both end.
for example

```
<div class = "container">
    <h2> Hello World </h2>
    </div>
```

| Hello world |
|---|

• container-fluid is a container where HTML contents cover all page.
for example

| Hellow world here is 2022 |
|---|

31.5/50

(c)
```
<div class="container">
    <div class = "row">
        <div class = "col-sm-4">
            <p> one of three column </p>
            </div>
        <div class = "col-sm-4">
            <p> one of three column </p>
            </div>
        <div class = "col-sm-4">
            <p> one of three column </p>
            </div>
    </div>
</div>
```

05

(d)
```
<button class = "btn btn-primary" data-toggle = "modal" data-target="#ModalExam
    ple" name = "button"> Open Modal </button>
```

3

2 (b) <!-- XML code for real-estate -->

<?xml version = "1.0" encoding = "UTF-8" standalone = "Yes"?>

i)

<real_estate>

<agencies> </agencies>

<owners> </owners>

<properties> </properties>

<flats> </flats>

</real_estate>

ii) <?xml version = "1.0" encoding = "UTF-8" standalone = "Yes" ?>

<!DOCTYPE real_estate

[

<!ELEMENT real_estate ( , , , )>

<!ELEMENT agencies (#PCDATA)>

<!ELEMENT owners (#PCDATA)>

<!ELEMENT properties (#PCDATA)>

<!ELEMENT flats (#PCDATA)>

]>

<real_estate>

<agencies> </agencies>

<owners> </owners>

<properties> </properties>

<flats> </flats>

</real_estate>

<?XML Version = "1.0" Encoding = "UTF-8" standalone = "no" ?>

<! DOCTYPE real_estate SYSTEM "real.dtd">

<real_estate>

<asociar> </asociar>

<owners> </owners>

<properties> </properties>

<flats> </flats>

</real_estate>

---

<!-- external dtd -->.

real.dtd

<! DOCTYPE real_estate

[<! ELEMENT real_estate ( , , , )>

<! ELEMENT asociar (#PCDATA)>

<! ELEMENT owners (#PCDATA)>

<! ELEMENT properties (#PCDATA)>

<! ELEMENT flats (#PCDATA)>

]>.

3 A) <? Php

$Servername = "Localhost";

$Username = "root";

$password = "Civo";

//create connection

$conn = mysqli_Connect ($Servername, $Username, $password);

// test connection

if (! conn) {

echo "Error while connecting". mysqli_Connect_Error

}

else
{
echo "successfully connected";
}.

iii) SQL = "SELECT * FROM error";
$result = mysqli_query($conn, $SQL);

ii) $servername = "localhost";
$username = "root";
$password = "civo";
$Dbname = "CP311";

$Conn = Mysqli_Connect ($servername, $username, $password, $Dbname);

iv) $result = mysqli_query ($conn, $sql);
while ($row = mysqli_num_rows ($result) > 0) {

}.

v) Mysqli_close ($conn);

1. @ i) Online we from sources
ii) CDN download and embend in a web page.
The Method recommended for development is through download file, extract in folder and adel extension to your web page.

2 A) The below XML document does not have DTD that validates it.
But it can be added through internal or external.
for internal keyword such as standalone = "yes" and <!DOCTYPE identifier can be added.
For external standalone = "No" and <!DOCTYPE root identify SYSTEM "extension of file">