



Course Code /Title: CSA4399 – Internet Programming
Programme : Computer Science and Engineering

ASSIGNMENT QUESTIONS
SET - 1

S.No	Questions	Marks	CO	BTL
1	You are tasked with creating a web page for a bike showroom. The showroom wants a clean and interactive design where customers can easily navigate through different bike brands and view the specific models and their specifications. The page should be divided into three frames using a frameset: a top row for displaying the showroom name, a left column for listing bike brands with hyperlinks, and a right column for showing the corresponding bike models and specifications when a brand is selected.	10	CO1	3
2	You are tasked with designing a job application form for a company's career page. The form should be user-friendly and visually appealing. The form needs to capture the applicant's personal information, including their name, highest qualified degree, and gender. Additionally, it should have a "Submit" button to send the application and a "Cancel" button to reset the form or go back to the previous page.	10	CO1	3
3	You have been assigned the task of establishing a development environment for a new web application project. The team is considering whether to utilize the LAMP stack or the WAMP stack. They need a clear understanding of the essential components of these stacks, their functions, and the installation procedures on both Linux and Windows systems. Additionally, they seek to grasp the role of the Apache web server within the stack and how it integrates with the other components.	10	CO1	2
4	You are developing a web application that involves detailed interactions between clients and servers using HTTP. Your task is to ensure that the application can handle various HTTP request and response messages correctly. Additionally, you need to understand and manage common HTTP response status codes to effectively troubleshoot and handle different scenarios. Explain the structure of an HTTP request message and an HTTP response message.	10	CO1	2
5	You are tasked with creating a simple multi-page website for a small business that includes a homepage, an about page, and a contact page. The client wants the site to have a cohesive design with appealing visual elements. You need to apply various CSS styling techniques, including color schemes, typography, and layout adjustments, to enhance the overall look and feel of the site.	10	CO1	3

ASSIGNMENT-1 and ASSIGNMENT-2

Assignment Rubrics	Mark Split Up	Mark Score	Total Marks
Assignment -1 Question -1	form design button design layout look & feel	(4) (4) (2)	4 4 2
Assignment -1 Question -2	form design button design layout design	(4) (4) (2)	4 4 2
Assignment -1 Question -3	MySQL database PHP Script Output	(3) (4) (3)	3 4 3
Assignment -2 Question -4	HTML & PHP code Output	(5) (5)	5 5
Assignment -2 Question -5	HTML Structure Output	(5) (5)	5 5

ANIL WADHWA

ASSIGNMENT-1

1. You are tasked with creating a web page for a bike showroom. The showroom wants a clean and interactive design where customers can easily navigate through different brands and view specific models and their specifications. The page should be divided into three frames using a frame set: a top row for displaying the showroom name, a left column for showing the corresponding bike models and specifications when a brand is selected.

index.html:

```
<!DOCTYPE html>
<html>
<head>
    <title> Bike Showroom </title>
</head>
<frameset rows = "15%, 85%">
    <frame src = "header.html" name = "headerframe"
        noresize scrolling = "no">
    <frameset cols = "20%, 80%">
        <frame src = "brands.html" name = "brandsframe"
            frameborder = "1" noresize>
        <frame src = "models.html" name = "modelsframe"
            frameborder = "1" noresize>
    </frameset>
</frameset>
```

</frameSet>

</html>

header.html :

<!DOCTYPE html>

<html>

<head>

<title> Bike Showroom </title>

<style>

body {

background-color: Blue;

color: white;

text-align: center;

font-family: Arial;

}

</style>

</head>

<body>

<h1> Welcome to Reval Showroom </h1>

</body>

</html>

brands.html :

<!DOCTYPE html>

<html>

<head>

<title> Bike Brands </title>

<style> </style>

```
<head>
  <style>
    font-family: Arial;
    background-color: green;
    color: white;
    padding: 10px;
  </style>
</head>
<body>
  a {
    color: white;
    text-decoration: none;
    display: block;
    padding: 10px;
  }
</body>
</html>
```

Bike Brands

```
<h2> Bike Brands </h2>
<a href = "honda.html" target = "model frame">
  Honda </a>
<a href = "Yamaha.html" target = "model frame">
  Yamaha </a>
</body>
</html>
```

Models.html

```
<!DOCTYPE html>
<html>
  <head>
    <title> Bike Models </title>
    <style>
      body {
        font-family: Arial;
        background-color: yellow;
        color: black;
        padding: 10px;
      }
    </style>
  </head>
  <body>
    <h2> Bike Models </h2>
    <ul>
      <li> Honda CRF 150 </li>
      <li> Honda CBR 600 </li>
      <li> Honda CBR 1000 </li>
      <li> Yamaha R1 </li>
      <li> Yamaha R6 </li>
    </ul>
  </body>
</html>
```

```
body {  
    background-color: pink;  
    font-family: Arial;  
    padding: 10px;  
    border: 1px solid black;  
}  
</style>  
</head>  
<body>  


## Welcome to the bike showroom



Please select a brand to view the available models and specifications.



Honda



Bajaj



Kawasaki


```

honda.html:

```
<!DOCTYPE html>  
<html>  
<head>  
<title>Honda Models</title>  
<style>  
body {  
    font-family: Arial;  
    padding: 10px;  
}  
h2 {  
    color: blue;  
}  
models {  
    background-color: white;  
}
```

```
padding: 10px;  
border: 1px solid grey;  
margin bottom: 20px;  
  
</style>  
</head>  
<body>  
    <h2> Honda Bike Specifications </h2>  
    <div class = "models">  
        <h3> Honda CBR 600RR </h3>  
        <p> Engine : 599cc</p>  
        <p> Price : $11,799</p>  
    </div>  
    <div class = "models">  
        <h3> Honda CB500F </h3>  
        <p> Engine : 471cc</p>  
        <p> Price : $15,999</p>  
    </div>  
</body>  
</html>
```

Yamaha.html :

```
<!DOCTYPE html>  
<html>  
<head>  
    <title> Yamaha Models </title>  
    <style>  
        body {  
            font-family: Arial;  
            padding: 10px;  
        }  
    </style>
```


Output Webpage:

Welcome to Reva Showroom

Bike Brands

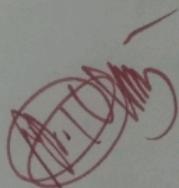
Honda

Yamaha

Welcome to the Bike showroom

Please select a brand to view the available brands and their models and specifications.

1. Honda : Honda, Bajaj Pulsar
2. Yamaha : Yamaha
3. Suzuki : Suzuki - V-Strom
4. Royal Enfield : Royal Enfield
5. TVS : Apache



Mark Splitter & service - based

Address :

Plot no 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 989, 990, 991, 992, 993, 994, 995, 995, 996, 997, 998, 999, 999, 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1095, 1096, 1097, 1098, 1099, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1169, 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1179, 1180, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1189, 1189, 1190, 1191, 1192, 1193, 1194, 1195, 1195, 1196, 1197, 1198, 1199, 1199, 1200, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1209, 1210, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1219, 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1227, 1228, 1229, 1229, 1230, 1231, 1232, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1239, 1240, 1241, 1242, 1243, 1244, 1245, 1246, 1247, 1248, 1249, 1249, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 1259, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1289, 1290, 1291, 1292, 1293, 1294, 1295, 1295, 1296, 1297, 1298, 1299, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1308, 1309, 1309, 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1357, 1358, 1359, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1366, 1367, 1368, 1369, 1369, 1370, 1371, 1372, 1373, 1374, 1375, 1376, 1377, 1378, 1379, 1379, 1380, 1381, 1382, 1383, 1384, 1385, 1386, 1387, 1388, 1389, 1389, 1390, 1391, 1392, 1393, 1394, 1395, 1395, 1396, 1397, 1398, 1399, 1399, 1400, 1401, 1402, 1403, 1404, 1405, 1406, 1407, 1408, 1409, 1409, 1410, 1411, 1412, 1413, 1414, 1415, 1416, 1417, 1418, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1429, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439, 1439, 1440, 1441, 1442, 1443, 1444, 1445, 1446, 1447, 1448, 1449, 1449, 1450, 1451, 1452, 1453, 1454, 1455, 1456, 1457, 1458, 1459, 1459, 1460, 1461, 1462, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1469, 1470, 1471, 1472, 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487, 1488, 1489, 1489, 1490, 1491, 1492, 1493, 1494, 1495, 1495, 1496, 1497, 1498, 1499, 1499, 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1595, 1596, 1597, 1598, 1599, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1649, 1650, 1651, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1695, 1696, 1697, 1698, 1699, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1795, 1796, 1797, 1798, 1799, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1895, 1896, 1897, 1898, 18

2. You are tasked with designing a job application form for a company's career page. The form should be user-friendly and visually appealing. The form needs to capture the applicant's personal information, including their name, highest qualified degree and gender. Additionally, it should have a "submit" button to send the application and a "cancel" button to reset the form or go to previous page.

```
<!DOCTYPE html>
<html>
<head>
    <title> Job Application </title>
    <style>
        body {
            font-family: Arial;
            background-color: white;
            display: flex;
            justify-content: center;
            align-items: center;
            height: 100vh;
            margin: 0;
        }
        .form-container {
            background-color: white;
            padding: 20px;
            border-radius: 8px;
            width: 100%;
        }
        h2 {
            text-align: center;
            color: black;
        }
    </style>
</head>
<body>
    <div class="form-container">
        <h2>Job Application</h2>
        <form>
            <input type="text" placeholder="Name" />
            <input type="text" placeholder="Degree" />
            <input type="text" placeholder="Gender" />
            <input type="button" value="Submit" />
            <input type="button" value="Cancel" />
        </form>
    </div>
</body>

```

• form group {

 margin-bottom: 15px;

}

• form group label {

 display: block;

 margin-bottom: 5px;

 color: black;

• form group input [type="radio"] {

 margin-right: 10px;

• form group select {

 width: 100%;

 padding: 10px;

 border: 1px solid white;

 border-radius: 5px;

• form button {

 display: flex;

 justify-content: center;

• form-button button [type="submit"] {

 background-color: green;

 color: white;

}

• form button button [type="reset", "button"] {

 background-color: white;

 color: black;

}

```
</style>
</head>
<body>
<div class = "form-container">
    <h2> Job Application Form </h2>
    <form action = "/submit-application" method = "post">
        <div class = "form-group">
            <label for = "name"> Full Name </label>
            <input type = "text" id = "name" required>
        </div>
        <div class = "form-group">
            <label for = "degree"> Highest Degree </label>
            <select id = "degree" name = "degree" required>
                <option value = "0"> Select Your Degree </option>
                <option value = "High School"> High School </option>
                <option value = "Bachelor Degree"> Bachelor Degree </option>
                <option value = "Master's Degree"> Master's Degree </option>
                <option value = "Ph.D."> Ph.D. </option>
            </select>
        </div>
        <div class = "form-group">
            <label> Gender </label>
            <label> <input type = "radio" name = "gender" value = "Male" required> Male </label>
        </div>
    </form>
</body>
```

```
<label> <input type="radio" name="gender" value="Female"> Female </label>
</div>

<div class="form-buttons">
    <button type="submit"> Submit </button>
    <button type="reset"> Cancel </button>
</div>

</form>
</div>
</body>
</html>
```

Job Application Form

Full name

Highest Degree

Select your degree

Gender

Male

Female

Submit

Cancel

3. You have been assigned the task of establishing a development environment for a new web application project. The team is considering whether to utilize the LAMP stack or the WAMP stack. They need a clear understanding of the essential components of these stacks, their functionalities and the installation procedures on both LINUX and Windows systems. Additionally, they seek to grasp the role of the Apache web server within the stack and how it integrates with the other components.

Overview of LAMP and WAMP stacks:

LAMP stack (Linux, Apache, MySQL/MariaDB, PHP/Perl)

- **Linux**: The operating system that provides the foundation for the stack.
- **Apache**: The web server that handles requests and serves web content.
- **MySQL/MariaDB**: The database management system for storing and managing data.
- **PHP/Perl/Python**: Server-side languages for generating dynamic content.

WAMP stack (Windows, Apache, MySQL/Maria DB,

PHP/Perl/Python):

Windows: the operating system for the stack.

Apache: same role as in LAMP, serving web content.

MySQL/Maria DB: Handles database operations, like in LAMP.

PHP/Perl/Python: For server-side logic and interaction with databases.

Component Functions:

Operating System (Linux/Windows):

- provides the underlying environment for all other components.
- handles resource management, file system, security and user management.

Apache Web Server:

- Apache is responsible for serving static and dynamic web pages to users.
- It listens to incoming requests and sends the appropriate response.

MySQL/Maria DB:

- These are relational database management systems (RDBMS) that store and manage data in tables.

- They handle CRUD operations and work with PHP to retrieve and store data.

PHP/Perl/Python:

- These scripting languages process server-side code, handle logic and interact with the database.

- PHP generates HTML dynamically from MySQL

Installation Steps:

LAMP Stack on Linux (ex: Ubuntu):

1. Update system packages

2. Install Apache

3. Install MySQL/MariaDB

4. Secure installation

5. Install PHP

6. Restart Apache

7. Test PHP

WAMP Stack on Windows:

1. Download WAMP : WAMP Server

2. Run the Installer: Follow installation steps, and install in the default directory

3. Test Apache: Start WAMP server.

Open 'http://localhost' in web browser.

4. Test PHP: Create test.php in the file.

5. Visit 'http://localhost/test.php'.

6. Manage MySQL: Use phpAdmin at 'https://localhost'.

Apache's Role in the Stack:

• **Core Web Server:** Handles incoming HTTP requests.

• **PHP Integration:** Use modules to process PHP scripts.

• **Database Interaction:** Works with PHP scripts that query MySQL, allowing seamless data storage.

• **Configuration:** Apache's configuration files control server behaviour and integration with other services.

Conclusion:

Choosing between LAMP and WAMP depends on the team's OS preferences. Both stack offer robust web development environments, with Apache acting as a bridge b/w web servers, server side scripting, and database management.

Assignment-2

4. You are developing a web application that involves detailed interactions between clients and servers using HTTP. Your task is to ensure that the application can handle various HTTP request and response message correctly. Additionally, you need to understand and manage common HTTP response status codes to effectively troubleshoot and handle different scenarios.

HTTP Request and Response Messages:

Structure and key Concepts:

HTTP Request Message Structures:

1. Request Line:

- Method : Defines the action.
- URI / URL : Specifies the resource.
- HTTP Version : Protocol Version.

2. Headers :

- Provide metadata about the request

- Common Headers -

* Host

3. Blank Line:

- Separates headers from the body + code

4. Body:

- Contains data sent to the server
- (e.g. form data in a 'post' request).

HTTP Response Message Structure:

1. Status Line:

- HTTP Version: Protocol version
- Status code: Result of the request.
- Reason phrase: Description of the status code.

2. Headers:

- provides metadata about the response.

• Common headers:

- content-type: format of response
- content-length: size of response body
- set-cookie: information to store cookies on the client.

3. Blank Line: $\text{status} \rightarrow 200 / 100$

- Separates headers from the body

4. Body:

- Contains the data sent to the client.

key HTTP Response status code:

1. 1xx (Informational):

- '100 continue'

2. 2xx (Success):

- '200 OK'
- '201 created'

3. 3xx (Redirection):

- '301 Moved Permanently'
- '302 found'

4. 4xx (Client Errors):

- '400 Bad request'
- '401 Unauthorized'
- '403 Forbidden'
- '404 Not Found'

5. 5xx (Server Errors):

(e.g. 500 Internal Server Error)

- '502 Bad Gateway'

- '503 Service Unavailable'

Conclusion:

Understanding the structure of HTTP Request

and response message and managing HTTP status code is

essential for building web applications.

5. You are tasked with creating a simple multi-page website for a small business that includes a homepage, an about page, and a contact page. The client wants the site to have a cohesive design by appealing visual elements. You need to apply various CSS styling techniques, including colour schemes, typography, and layout adjustments to enhance the overall look and feel of the site.

Home Page (index.html)

```
<!DOCTYPE html>
<html>
<head>
    <title> Small Business </title>
    <link rel="stylesheet" href="style.css" />
</head>
<body>
    <header>
        <h1> Small Business </h1>
        <nav>
            <a href="index.html"> Home </a>
            <a href="about.html"> About </a>
            <a href="contact.html"> Contact </a>
        </nav>
    </header>
```

```
<div class="container">
```

```
<div class="content">
```

```
<h2> Welcome </h2>
```

```
<p> We are committed to providing  
exceptional service and high quality  
products </p>
```

L(body)

L(html)

about

L(doctype)

L(html)

L(head)

L(header)

L(nav)

website
about
to
you
ing
to

About Page (`about.html`):

```
<!DOCTYPE html>
<html>
  <head>
    <title> Small Business </title>
    <link rel="stylesheet" href="style.css">
  </head>
  <body>
    <header>
      <h1> Small Business </h1>
      <nav>
        <a href="index.html">Home</a>
        <a href="about.html">About</a>
        <a href="contact.html">Contact</a>
      </nav>
    </header>
    <div class="container">
      <div class="content">
```

```
<h2> About Us </h2>  
<p> Founded in 2024, our small business has  
been dedicated to serving the community by  
offering unique products and services. </p>  
</div>  
</div>  
<div class="content">  
<h3> Footer Information </h3>  
<div>  
<p> © 2024 Small Business. All rights reserved. </p>  
</div>  
</div>  
</div>
```

Contact Page (contact.html)

```
<!DOCTYPE html>  
<html>  
<head>  
<title> Contact </title>  
<link rel="stylesheet" href="style.css" />  
</head>  
<body>  
<header> Small Business </header>  
<nav>  
<a href="index.html"> Home </a>  
<a href="about.html"> About </a>  
<a href="contact.html"> Contact </a>  
</nav>  
</body>
```

```
<div class="container">  
  <div class="content">  
    <h2> Contact Us </h2>  
    <p> Feel free to reach out to us, we're  
      here to help! </p>  
    <p> Email: info@small-business.com </p>  
    <p> Phone: (123) 456-7890 </p>  
  </div>  
</div>  
<footer>  
  <p> © 2024 Small-Business. All rights reserved. </p>  
</footer>  
</body>  
</html>
```

Style.css:-

body {

font-family: 'Arial';

color: black;

line-height: 1.6;

}

header {

padding: 10px;

text-align: center;

color: white;

}

ASSIGNMENT

h1, h2 {

color: black;

font-size: 24px;

margin-bottom: 10px;

p {

margin-bottom: 15px;

margin-bottom: 15px;

3

footer {

text-align: center;

padding: 10px;

color: white;

margin-top: 20px;

background-color: black;

3. about webpage:

Small Business

Home

About

Contact

Welcome to Our Business

We are committed to providing exceptional service and high quality products.

© 2024 Small Business. All rights reserved.