# Week 4

# Task 1a

```
for($i=0;$i<10;$i++){
   echo $i+1;
}</pre>
```

#### Task 1b

```
function calculateBMI($weight, $height) {
   return $weight / ($height * $height);
}
$people = array(
    array("name" => "John", "height" => 1.75, "weight" => 70),
    array("name" => "Emma", "height" => 1.6, "weight" => 55),
    array("name" => "David", "height" => 1.8, "weight" => 85)
);
foreach ($people as $person) {
   $bmi = calculateBMI($person["weight"], $person["height"]);
   $classification = "";
   if ($bmi < 18.5) {
       $classification = "Underweight";
   } elseif ($bmi >= 18.5 && $bmi <= 24.9) {</pre>
       $classification = "Normal weight";
   } elseif ($bmi >= 25 && $bmi <= 29.9) {</pre>
       $classification = "Overweight";
    } else {
       $classification = "Obesity";
    }
    echo $person["name"] . " weighs " . $person["weight"] . " kilos and is " .
$person["height"] . " metres tall. " . $person["name"] . "'s BMI is " . $bmi .
" which classifies them as " . $classification . ".<br>";
}
```

### Task 2a

- Indexed Arrays: These are arrays with numeric indexes starting from 0 by default.
   The keys are the numbers themselves, and they start from 0 unless specified otherwise.
- Associative Arrays: These are arrays where each key is associated with a specific value, rather than a numeric index. The keys can be strings or integers and do not have to follow any particular order.

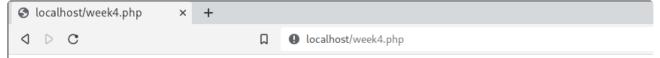
#### Task 2b

- Array A is an associative array because its elements are paired with string keys representing colours.
- Array B is an indexed array because its elements are accessed by numerical indices starting from 0.
- The keys for Array A are Red, White, Green, and Blue.
- The elements stored in Array B are 22.7, 28.5, 22.1

# Task 2c

```
$arrayA = array("Red" => "#FF0000", "White" => "#FFFFFF", "Green" => "#008000",
"Blue" => "#0000FF");
$arrayB = array(22.7, 28.5, 22.1);

foreach ($arrayA as $color => $hex) {
    echo "Color: " . $color . ", Hex Code: " . $hex . "<br>;
}
for ($i = 0; $i < count($arrayB); $i++) {
    echo "Value: " . $arrayB[$i] . "<br>;
}
```



#### 12345678910

John weighs 70 kilos and is 1.75 metres tall. John's BMI is 22.857142857143 which classifies them as Normal weight. Emma weighs 55 kilos and is 1.6 metres tall. Emma's BMI is 21.484375 which classifies them as Normal weight. David weighs 85 kilos and is 1.8 metres tall. David's BMI is 26.234567901235 which classifies them as Overweight.

Color: Red, Hex Code: #FF0000 Color: White, Hex Code: #FFFFF Color: Green, Hex Code: #008000 Color: Blue, Hex Code: #0000FF

Value: 22.7 Value: 28.5 Value: 22.1