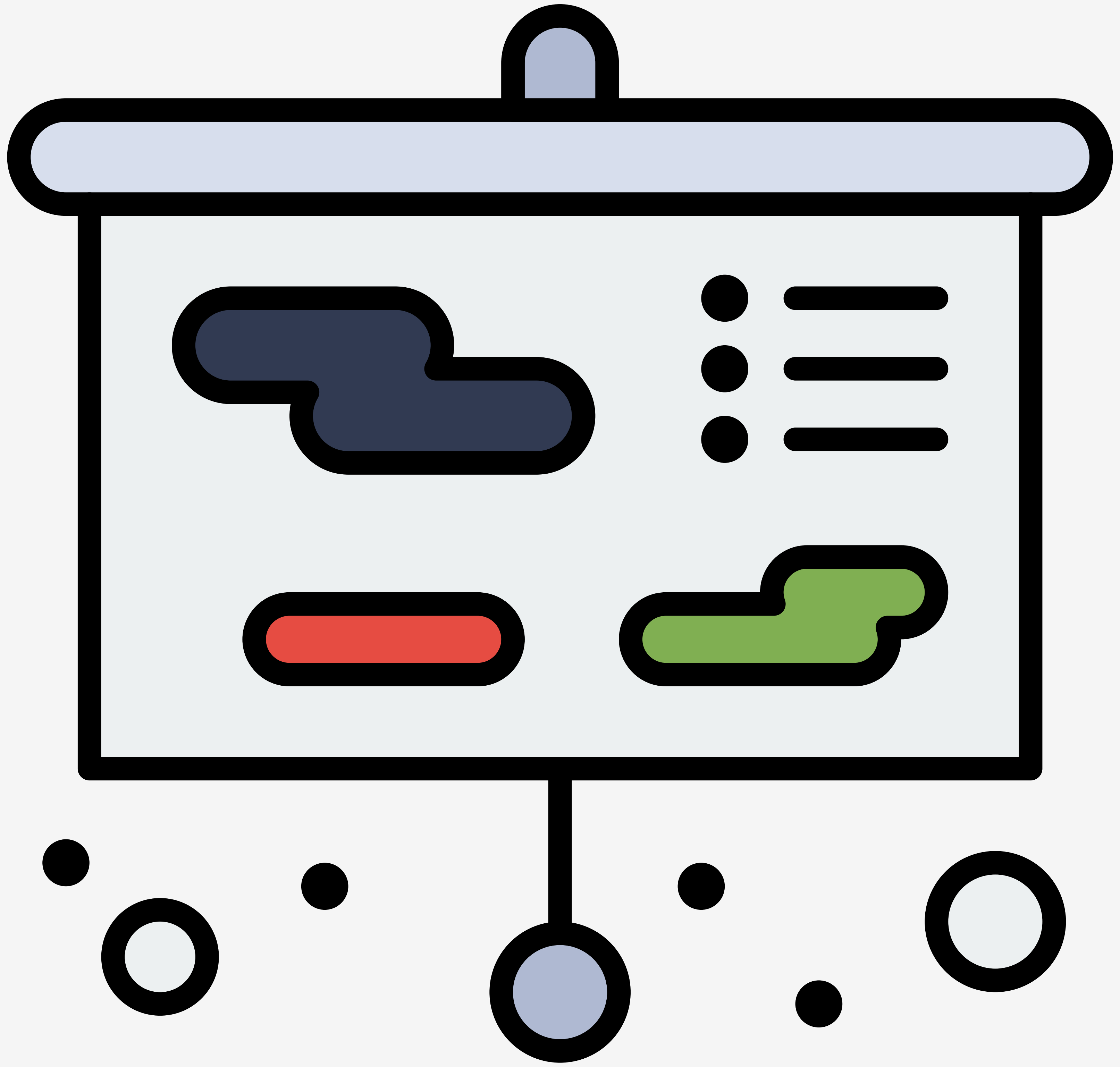
SERVER-SIDE
WEB DEVELOPMENT

Lecture 1

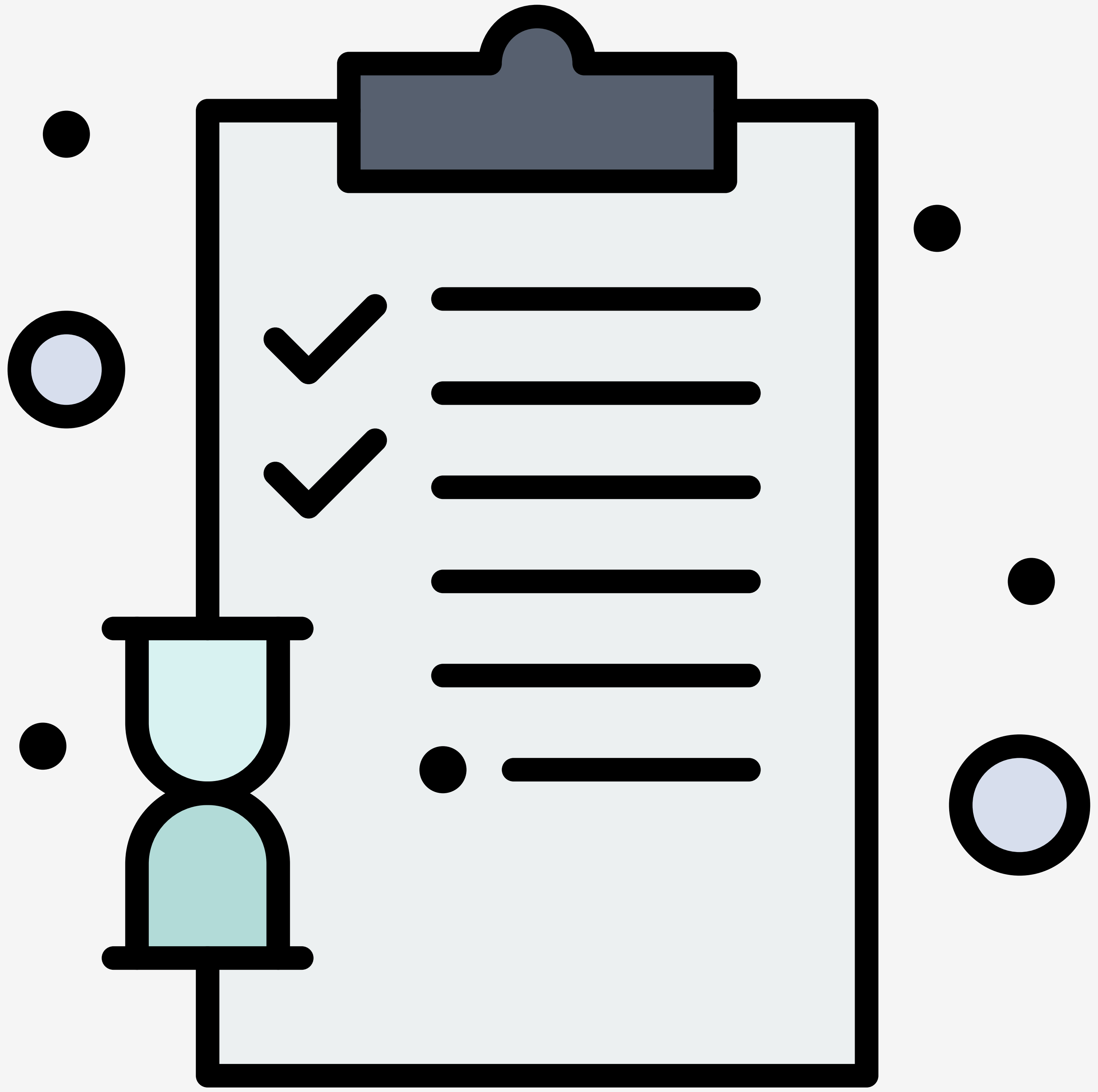
Graphics by Flatart on freepik.com

TODAY'S TOPICS



- Course Introduction
- Install Development Tools
- Review Git & GitHub
- PHP Basics
- Participation: Hybrid #1

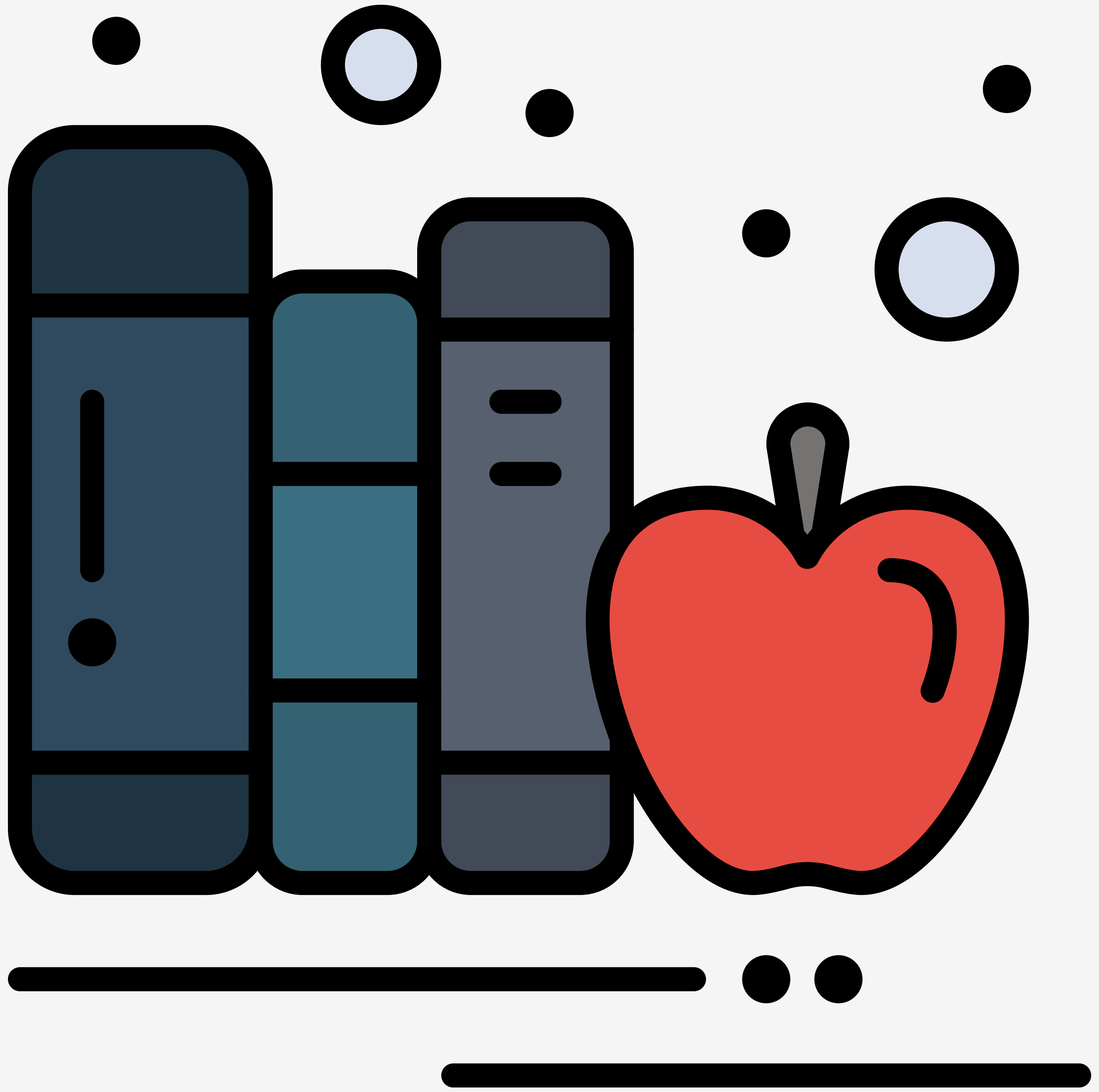
ANNOUNCEMENTS



- Sign-in Sheet
- Recordings

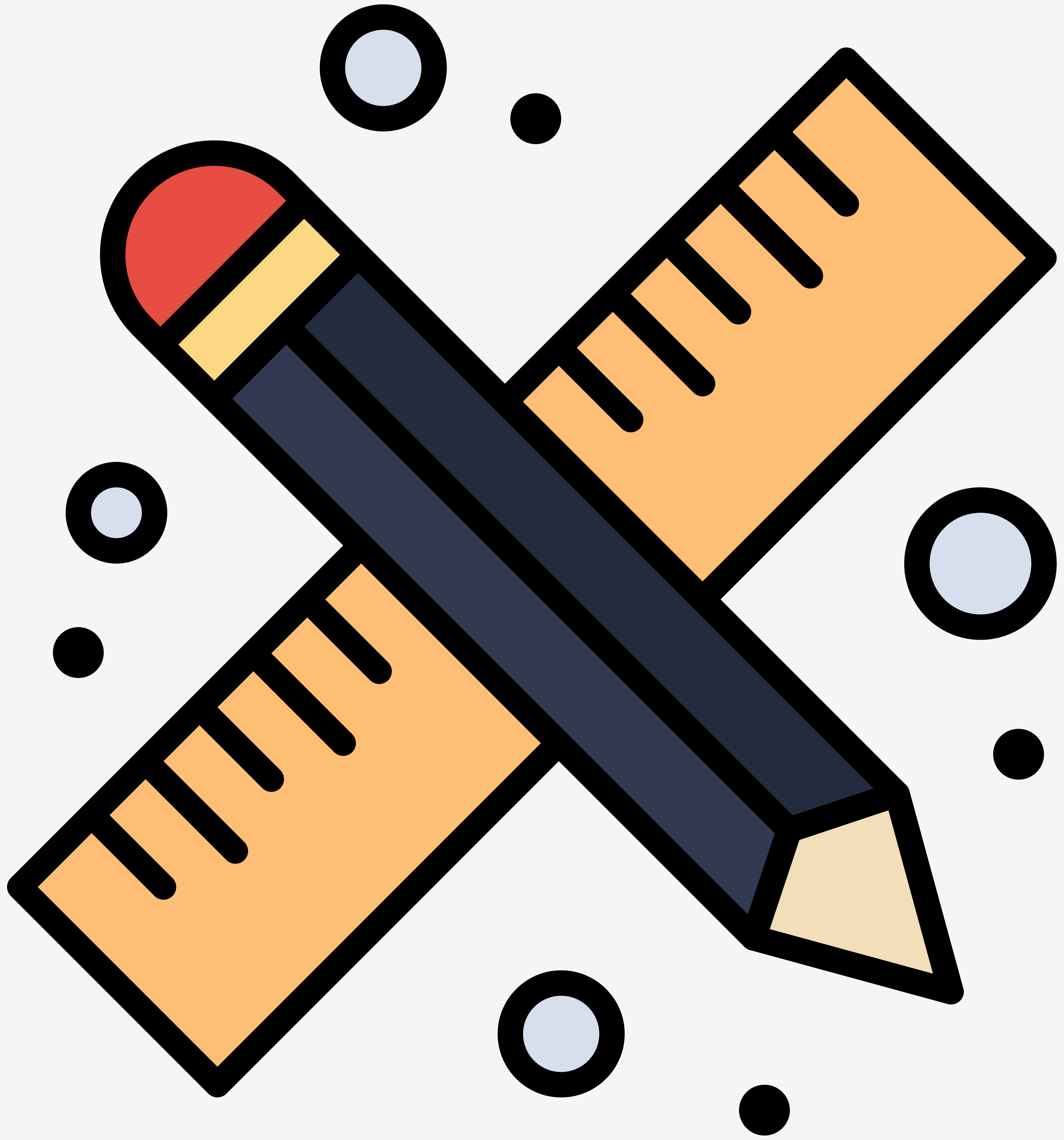
COURSE INTRODUCTION

COURSE TOPICS



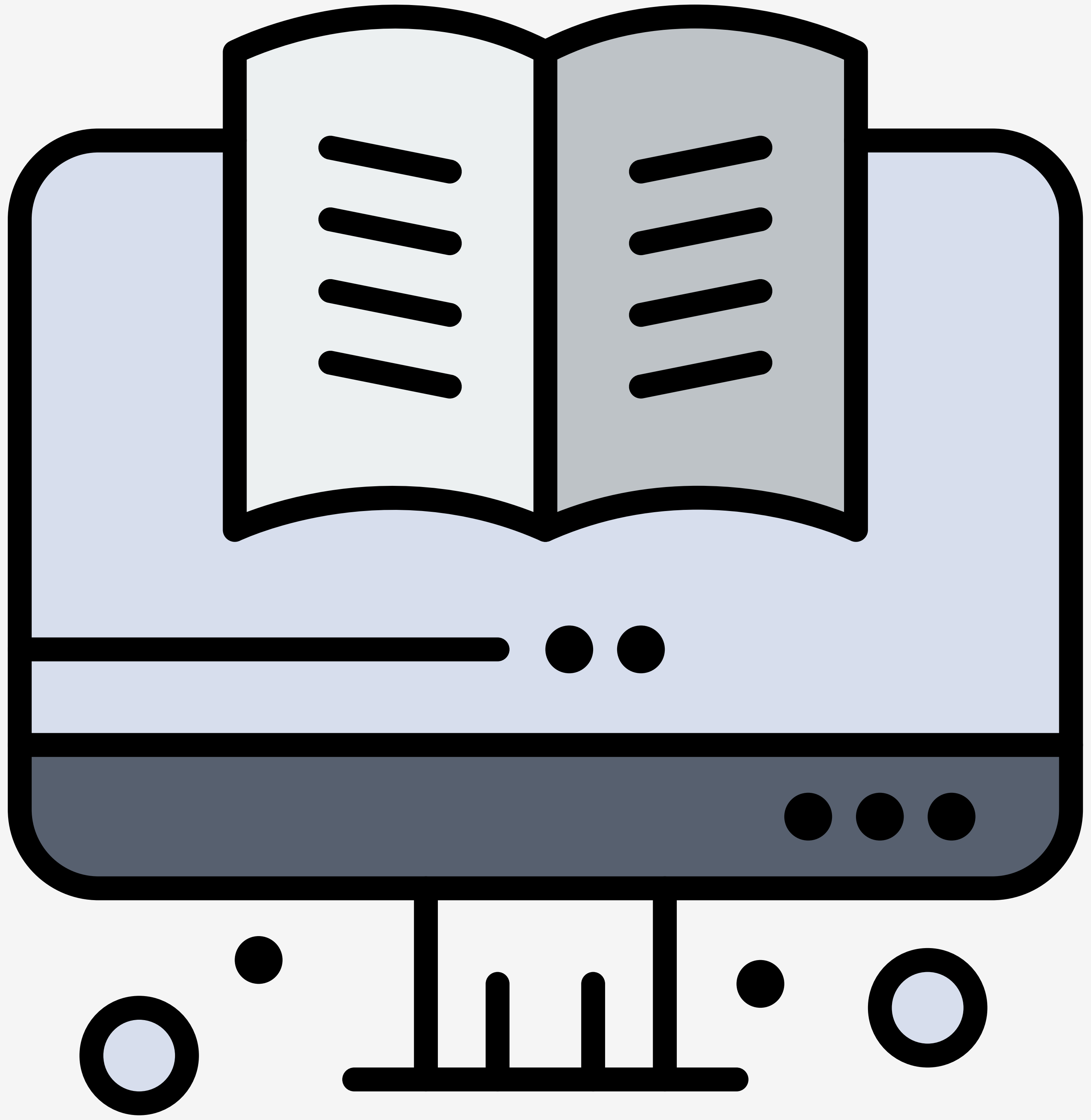
- PHP Basics
- PHP Requests
- PHP Includes
- Databases
- SQL Basics
- PHP Data Objects
- Laravel

ASSIGNMENTS



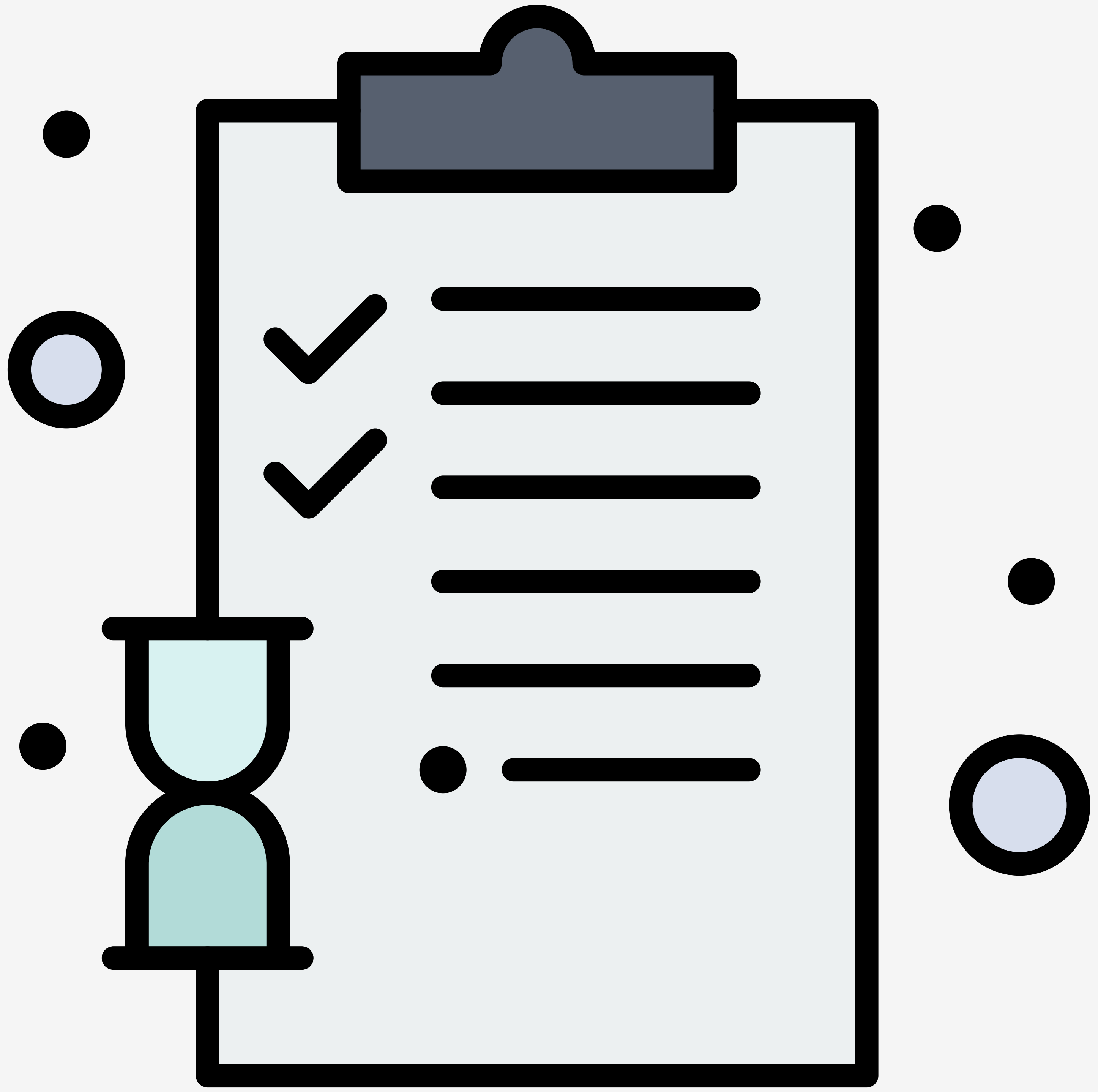
- 12 Participation (20%)
- 5 Exercises (30%)
- Midterm Project (25%)
- Final Project (25%)

COURSE CONTENT



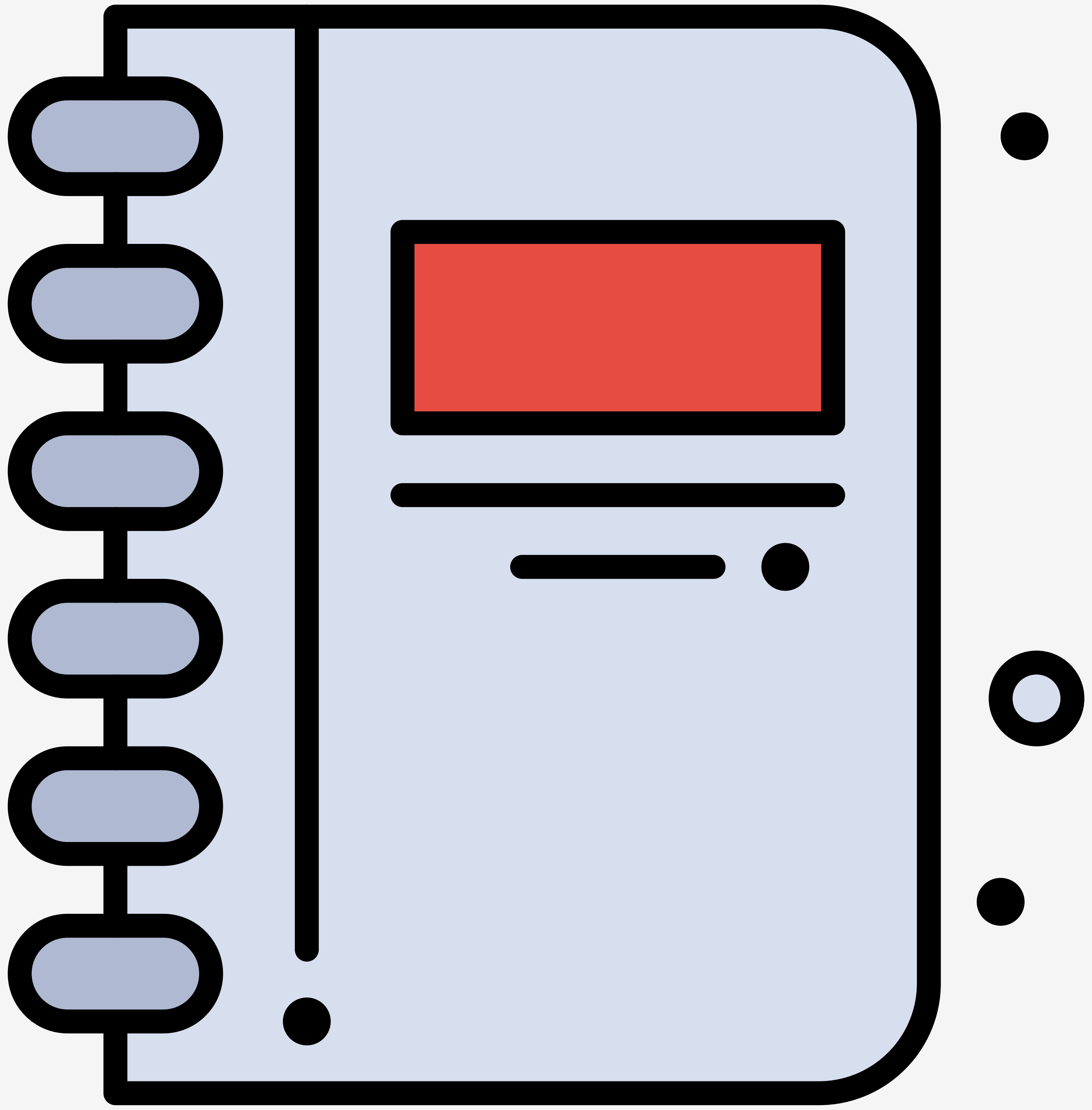
- IMDAC Website is use for content
- BrightSpace is used for submission and grades
- GitHub Classroom for submission

COURSE STRUCTURE



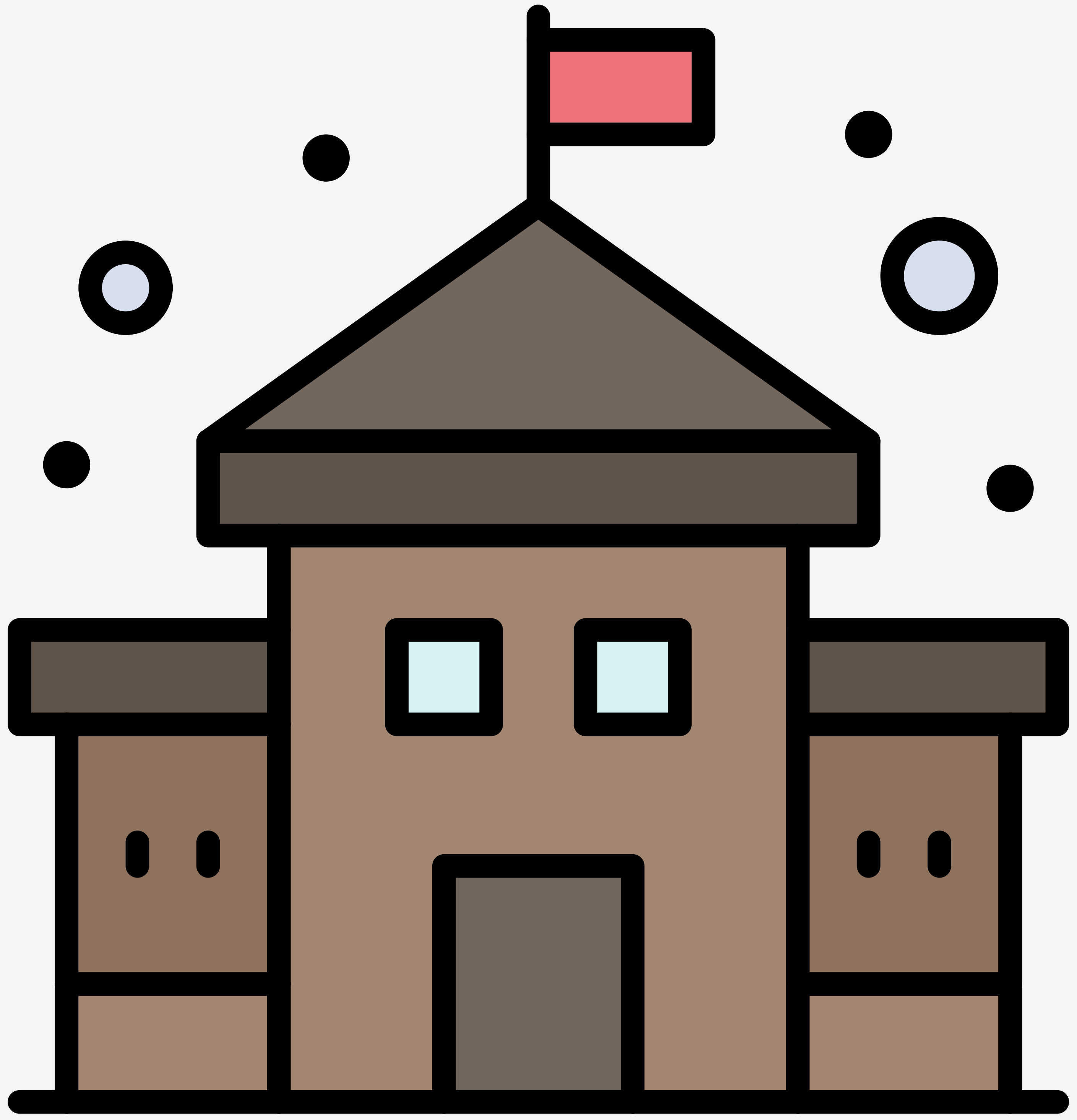
- 13 weeks (*No class on Family Day*)
- 3hrs/week lecture/lab
- 1hr/week online
- Slides and recordings will be made available

CLASS TIMES



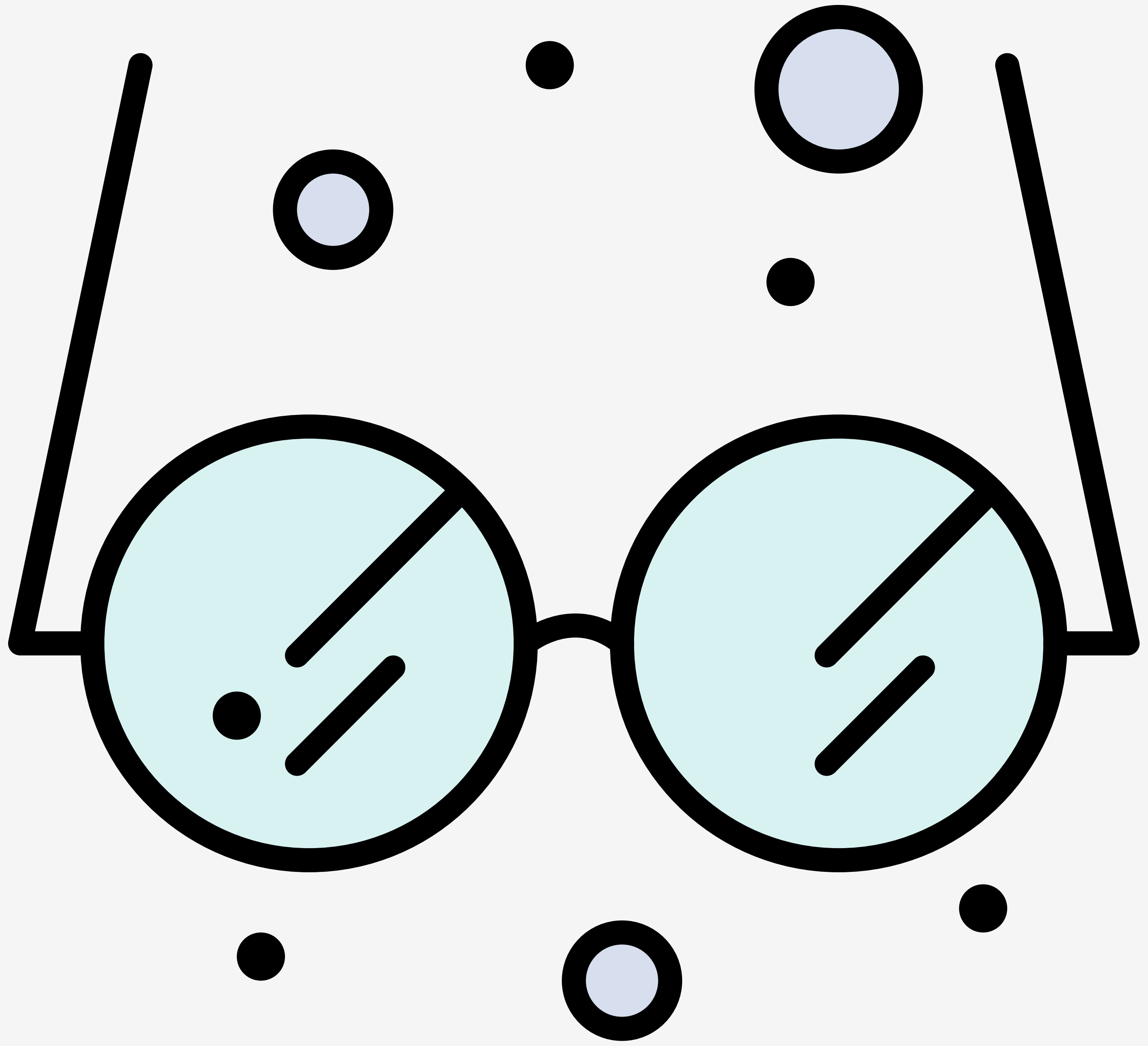
- **Section 310:**
  Mon 10:00 AM - 1:00 PM (T229)

STUDENT EXPECTATIONS



- Do the work
- Do your own work
- Don't be late
- Be respectful

PROFESSOR EXPECTATIONS

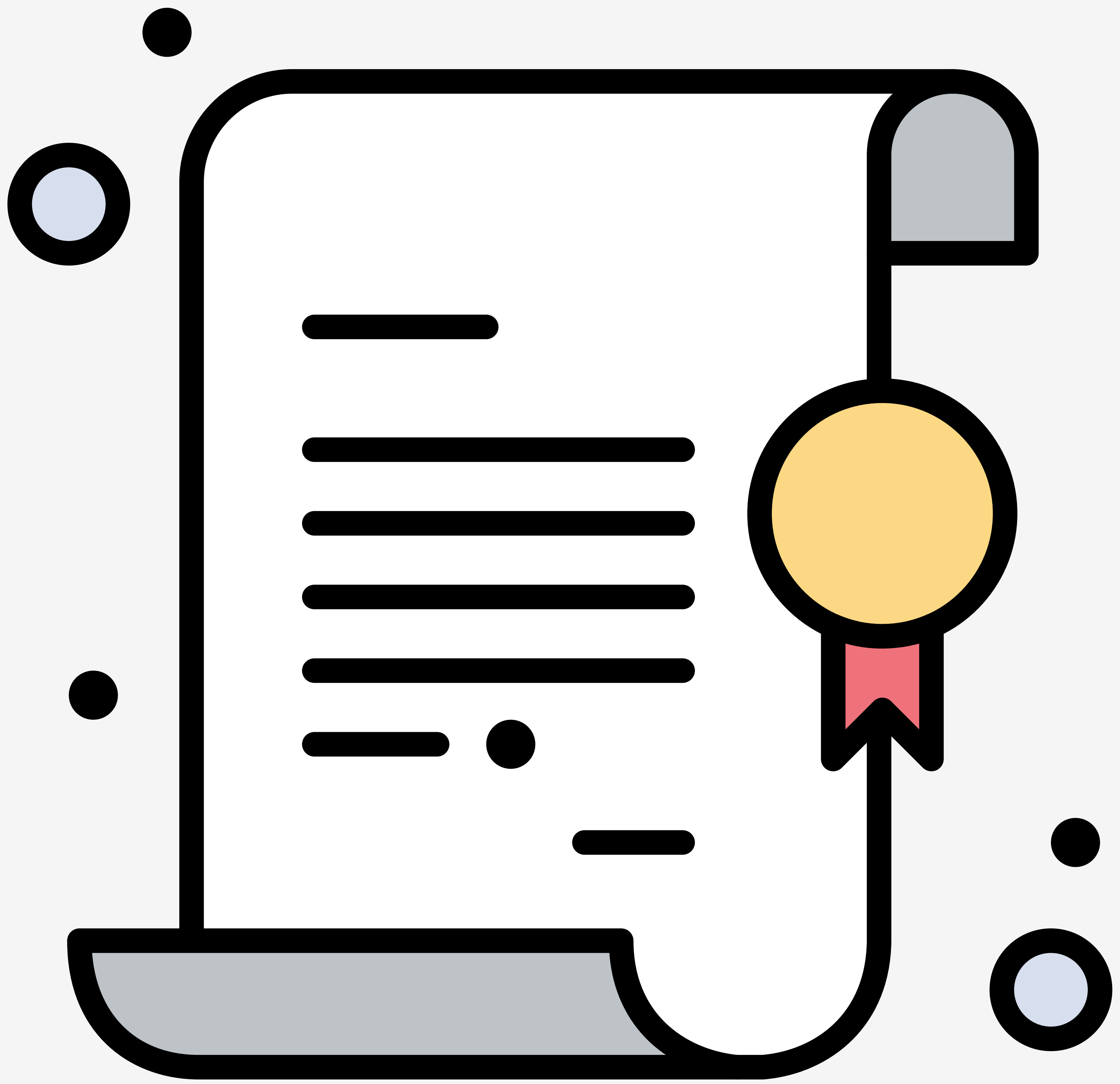


- Provide accurate and timely information
- Be flexible to the needs of the class
- Respond to emails within 48 hours
- Provide feedback within 2 week
- Fair and unbiased grading

PLAGIARISM & REFERENCING CODE

- Plagiarism is submitting someone else's work as your own *WITHOUT* proper reference
- Getting *ANY* code from online resource is considered plagiarism
- Sending or receiving code from a friend or classmate is considered plagiarism
- Working together on a project *MAY* fall under plagiarism

PLAGIARISM & REFERENCING CODE



- Any code that is not entirely your own should be referenced
- ONLINE: Include a description of what the code does and the source URL
- PERSON: Include a description of what the code does and the name of the person and when help was received
- EXCEPTION: Any code provided in class or in course content can be used without reference

INSTALL DEVELOPMENT TOOLS

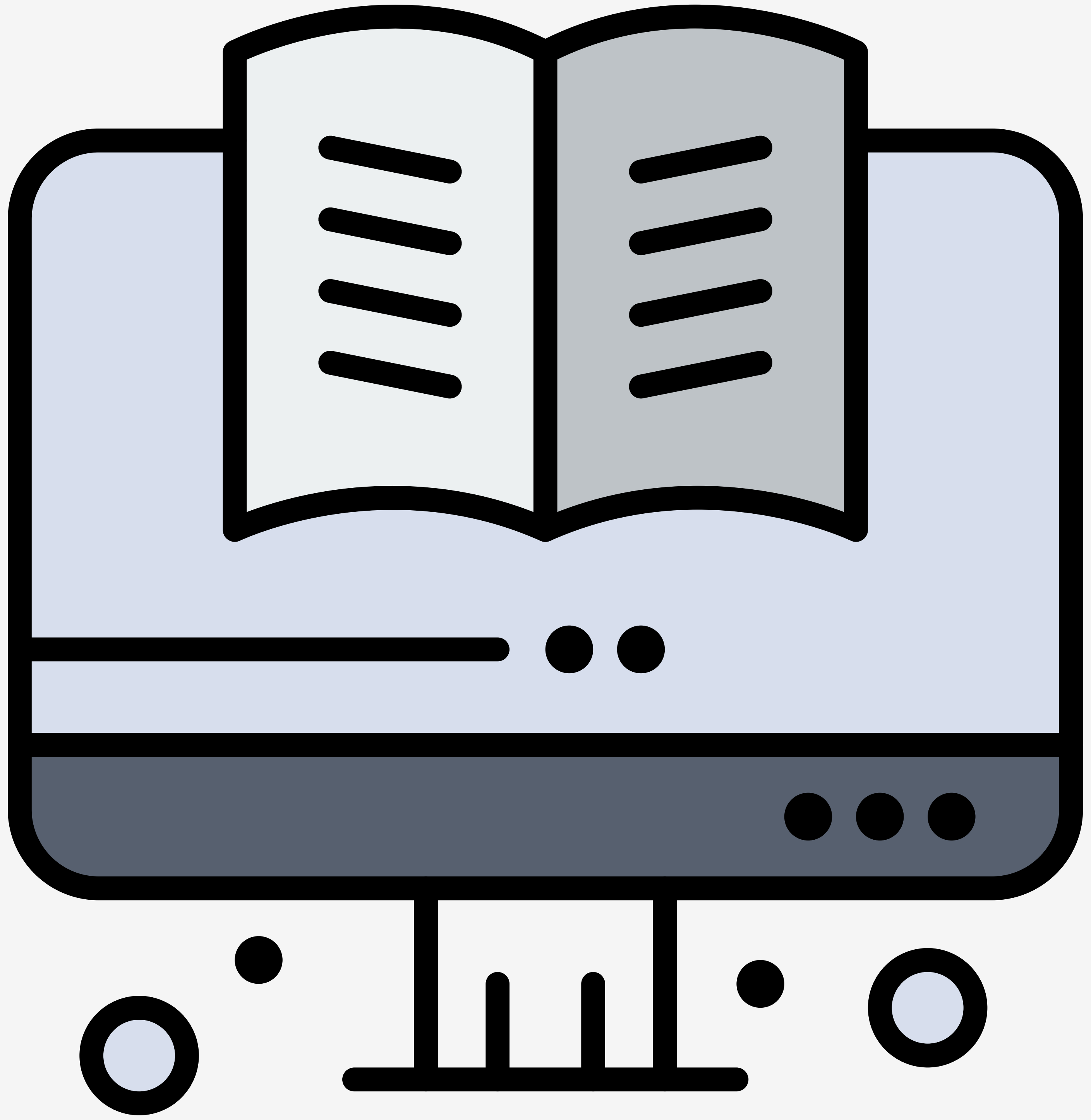
GIT & GITHUB

GIT & GITHUB

- Review Git & GitHub Basics
- GitHub Classroom

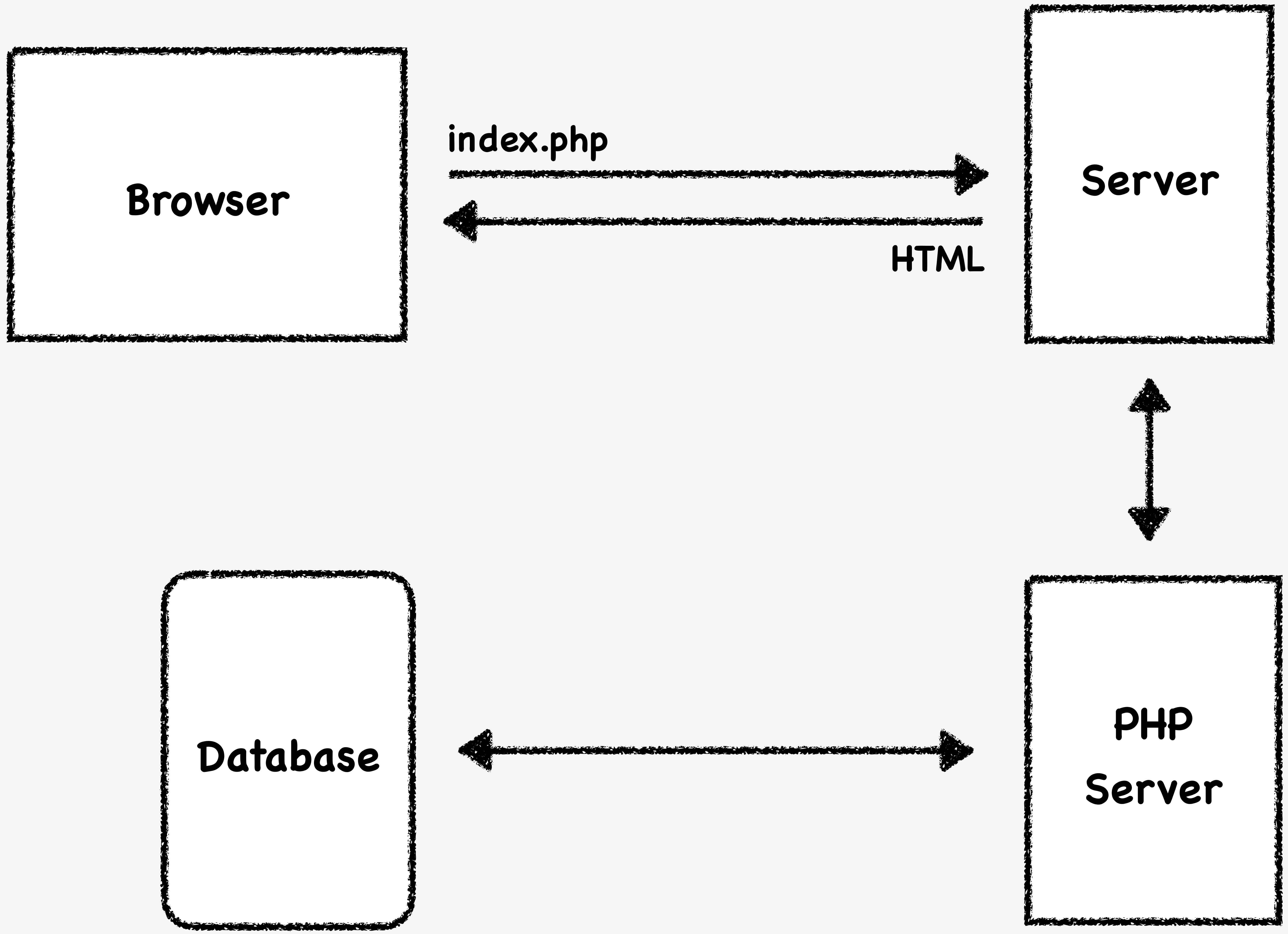
PHP BASICS

PHP HTML PREPROCESSOR

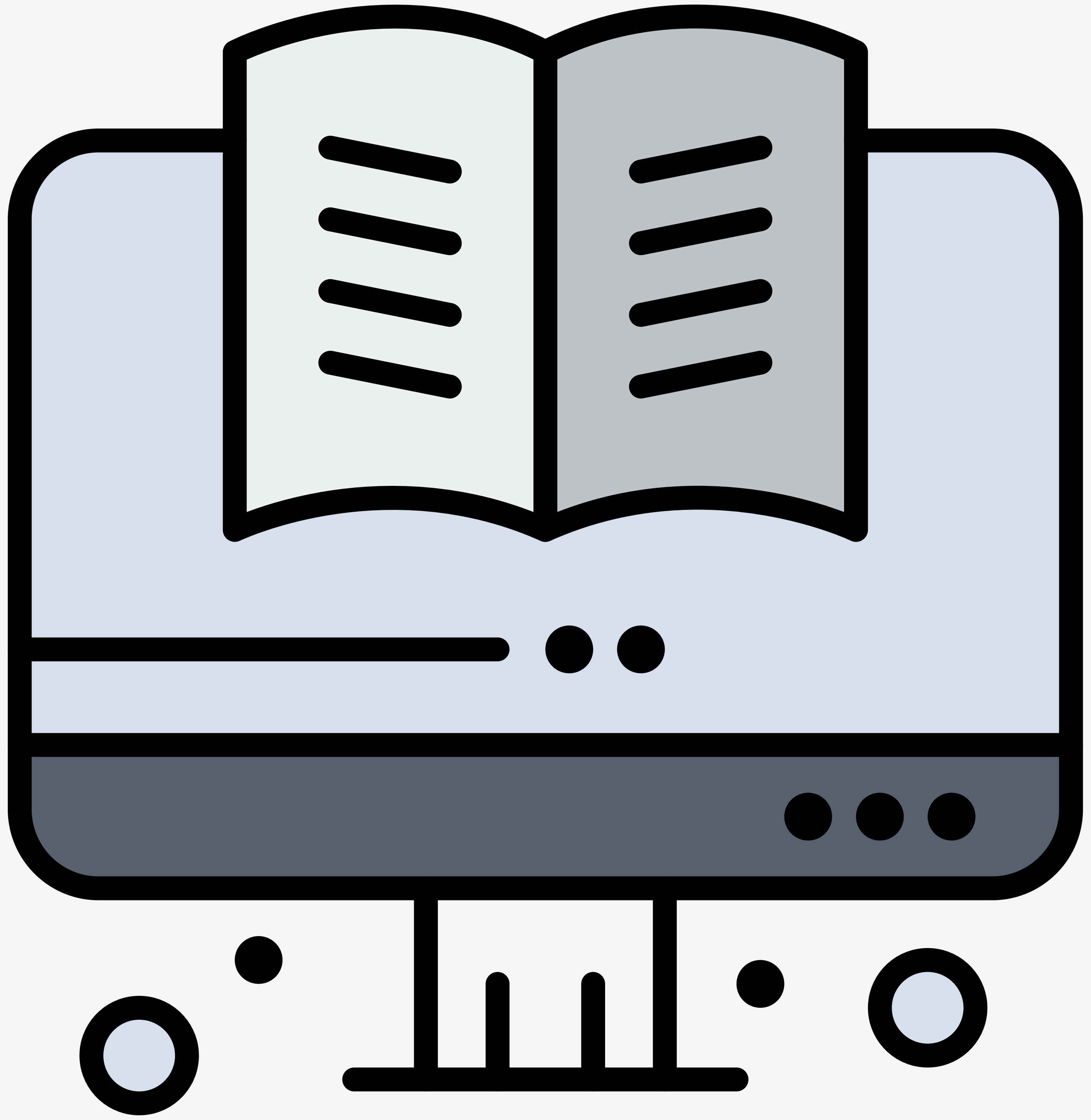


- General purpose scripting language
- HTML preprocessor
- Server-side language
- Cross-platform

HOW IS PHP PROCESSED



PHP SYNTAX

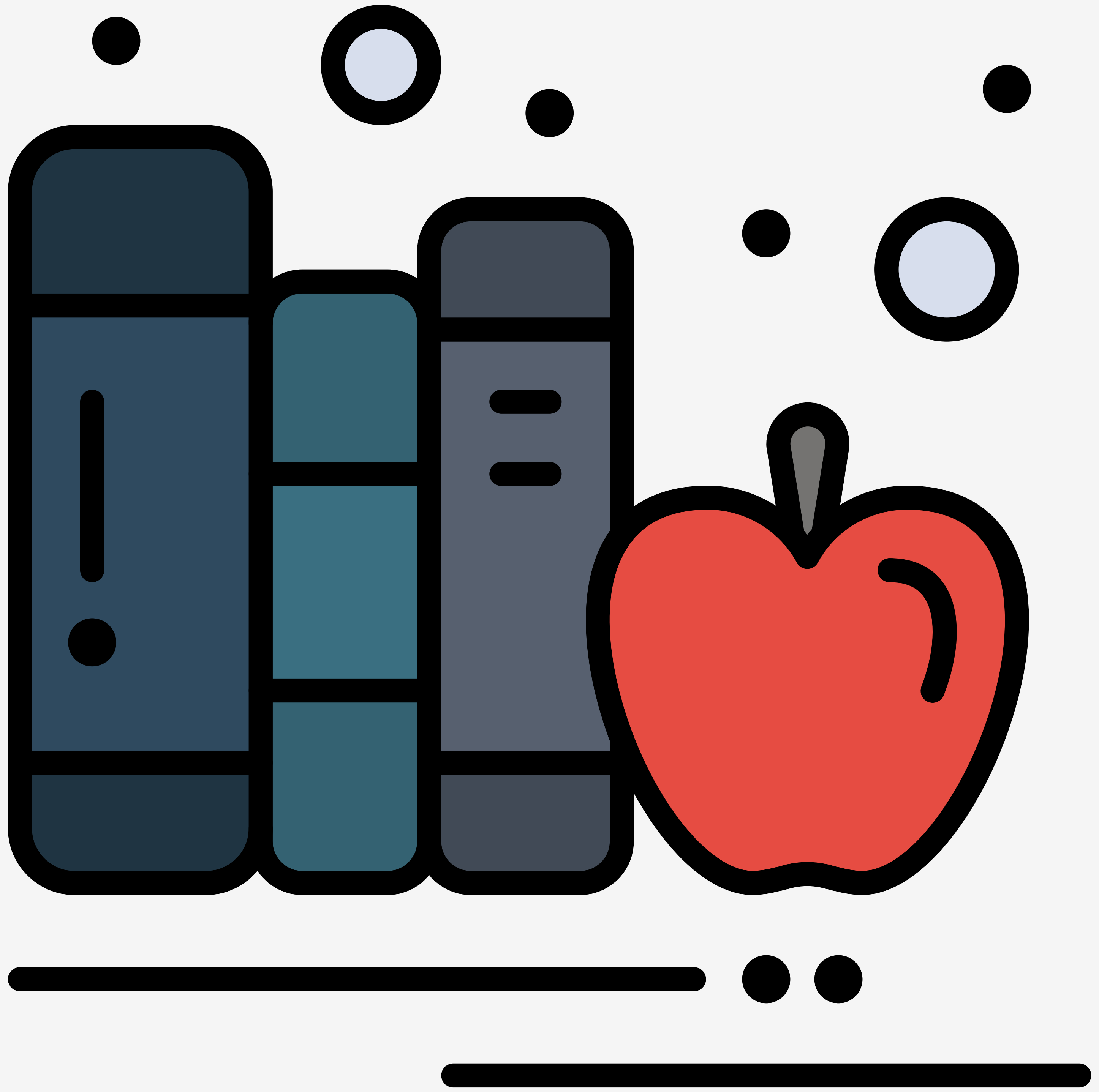


- PHP Extension (`.php`)
- PHP Tag (`<?php  ?>`)
- Semicolons are required

PHP SYNTAX

```
<?php $title = "A Simple PHP File"; ?>
<html>
  <head>
    <title><?php echo $title; ?></title>
  </head>
  <body>
    <?php echo "Hello World"; ?>
  </body>
</html>
```

PHP ECHO

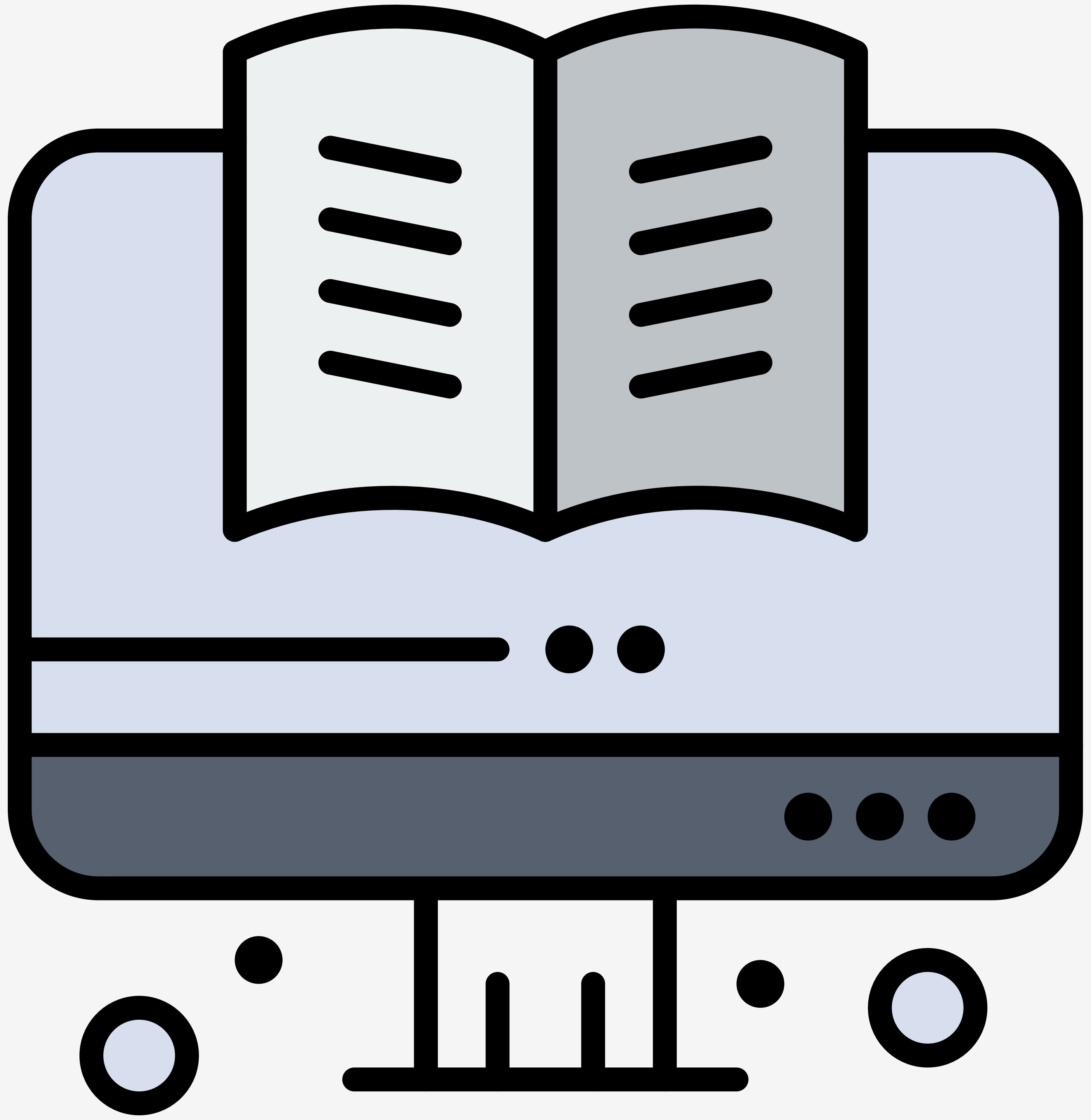


- Used to output one or more strings
- Primary to output PHP data as HTML

PHP ECHO

```
<?php $title = "A Simple PHP File"; ?>
<html>
  <head>
    <title><?php echo $title; ?></title>
  </head>
  <body>
    <?php echo "Hello World"; ?>
  </body>
</html>
```

PHP VARIABLES

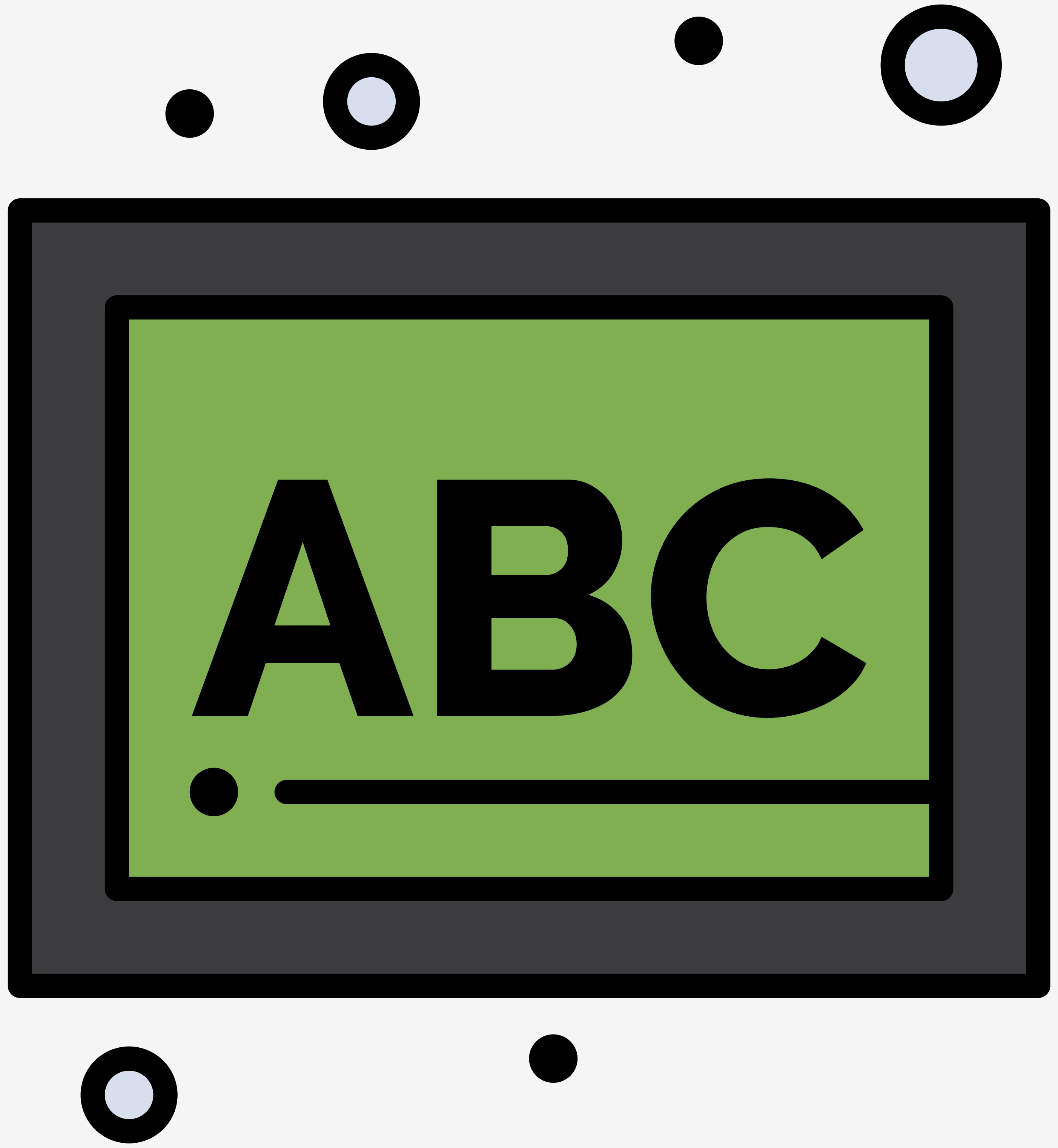


- Variables are used to hold data including strings, numbers, and arrays
- Variable names must start with a dollar sign ($)
- Variable names can contains letters, numbers, underscores, or dashes and are case-sensitives
- No declaration statement

PHP VARIABLES

```php
<?php
  // gives $num a value
  $num = 10;
  echo $num; // outputs 10
```

PHP STRINGS

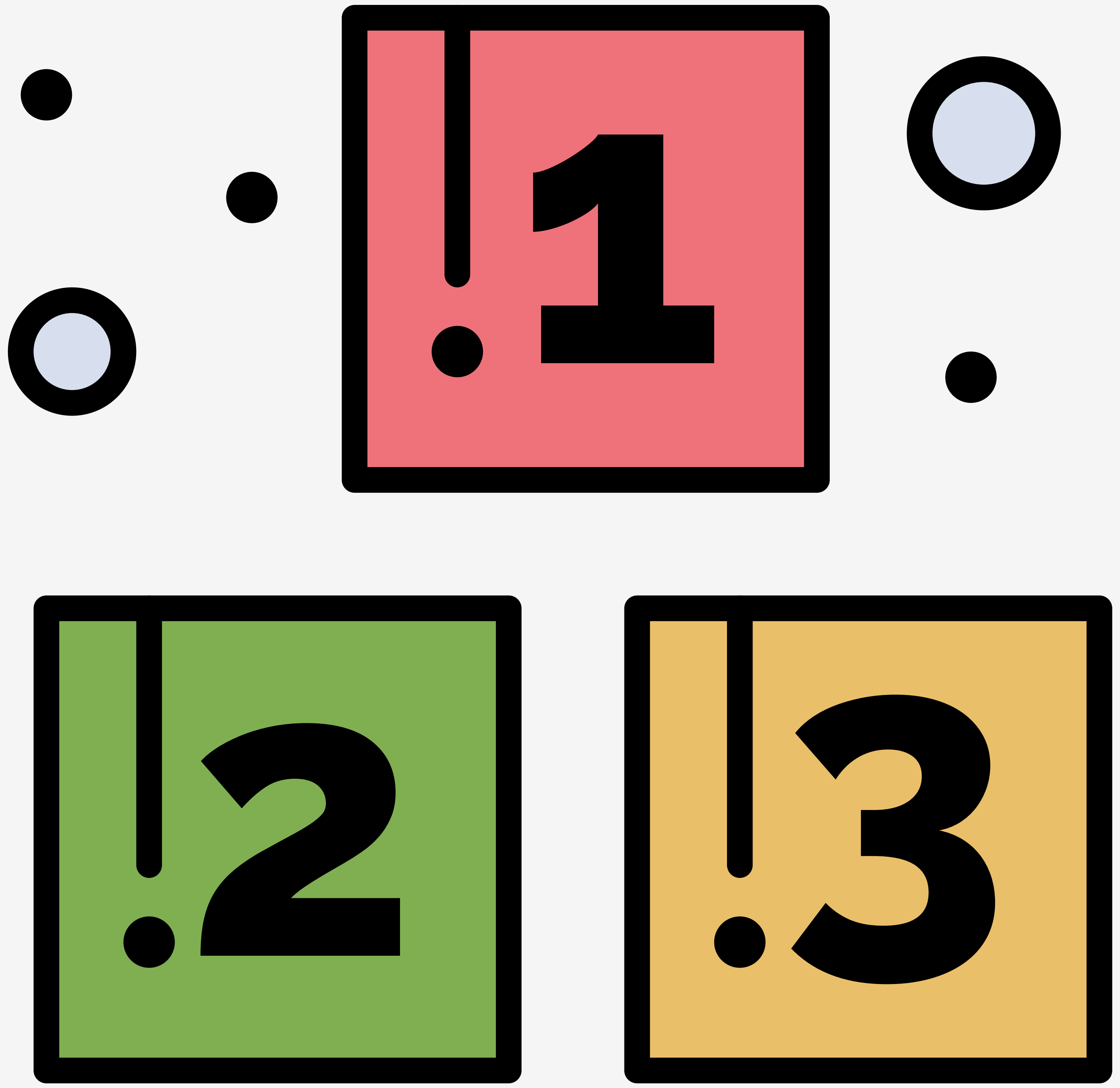


- Strings can be created using single quotes or double quotes
- Use the dot (.) is used for string concatenation
- Variable substitution occurs when a variable is embedded into a string literal (*double quotes only*)

PHP STRINGS

```php
<?php
  // setting the variables to strings
  $greeting = "Hello";
  $target = "World";

  // combine variables together with a string
  $phrase = $greeting . " " . $target;
  echo $phrase;

  // using variable substitution
  echo "{$phrase} Again!";
```

PHP ARRAYS

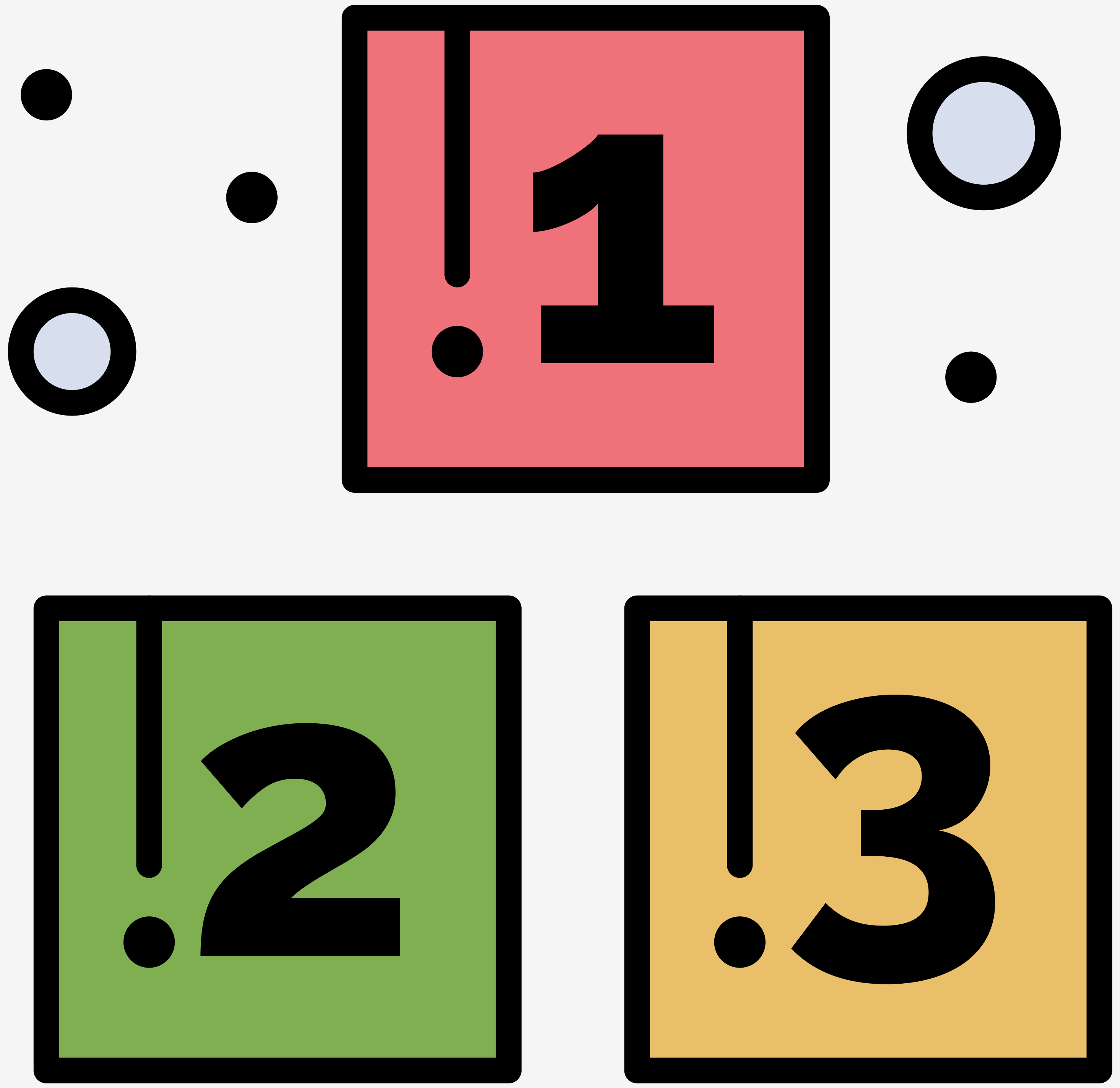


- An array is an indexed list of values
- Indexes start with `0`
- Bracket notation is used to retrieve values
- Values can be added, changed or removed from an array
- An array containing other arrays requires an additional notation

PHP ARRAYS

```php
<?php
  $numbers = [4, 8, 15, 16, 23, 42];

  // getting the second item
  echo $numbers[1]; // 8

  // getting the first item
  echo $numbers[0]; // 4
```

PHP ASSOCIATIVE ARRAYS



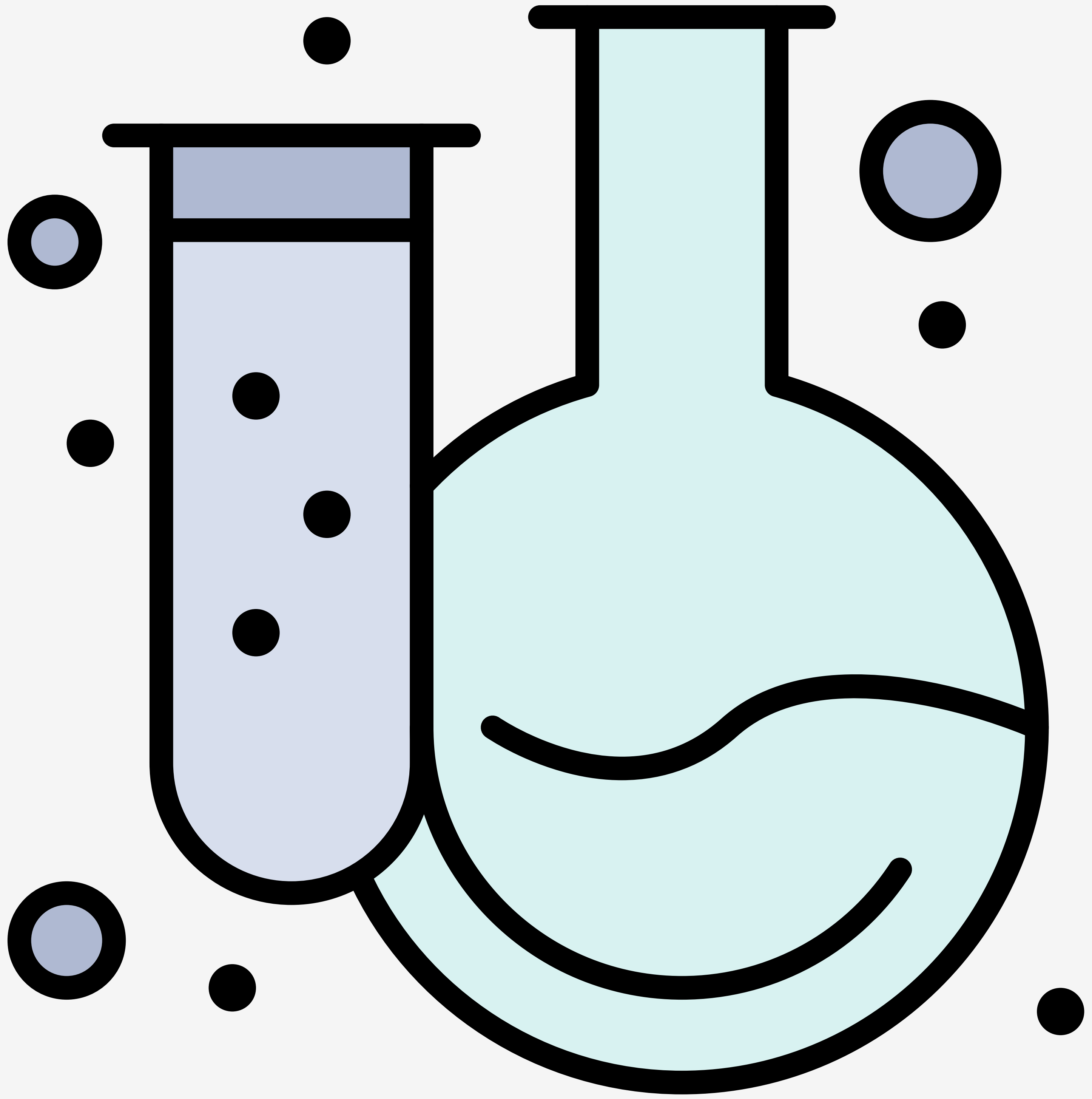
- Associative arrays uses strings instead of numbers which serve as labels or keys
- Both key and value must be provided when defining an associative array
- The key is used to both retrieve and update the value

PHP ASSOC. ARRAYS

```php
<?php
  // creating an assoc array
  $assoc = [
    "first_name" => "Michael",
    "last_name" => "Eisenbraun"
  ];

  // get the first name
  echo $assoc["first_name"]; // Michael

  // assign new value to first name
  echo $assoc["first_name"] = "Larry";

  // adding age to the array
  $assoc["age"] = 33;
```

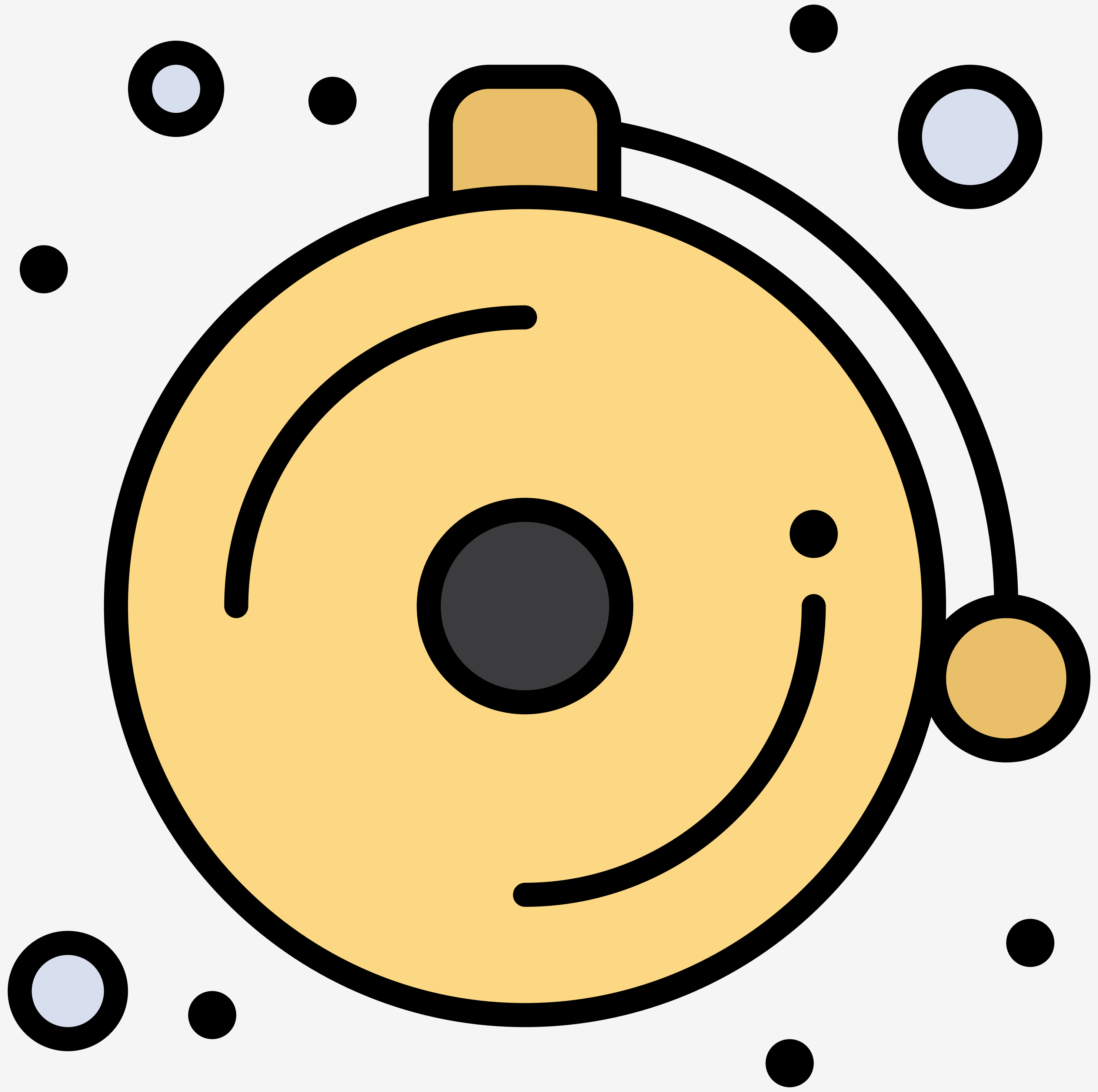
HANDS-ON

HYBRID #1



- Watch any 10 episodes of PHP Tips, Tricks, and Techniques on LinkedIn Learning
- Write 1 to 2 sentences for each episode
- *DUE:* **Mon. Jan. 27 @ 11:59 PM**

NEXT TIME...



- More PHP Basics
- Participation: Deck of Cards
- Exercise: Dominoes