

SAMPLE WORKSHEET

In this task we will be coding a Flappy Bird style game using JavaScript's 'Phaser' library.

STEPS:

- (1) Contain our game in a `Phaser.Game` subclass and code the game contents within a `Phaser.State` subclass.
- (2) Preload all of the assets.
- (3) Create our bird and program its associated behaviour.
- (4) Code the pipe columns that our bird will navigate through.
- (5) Add some basic animation and sound to the bird.

(1)

This basic game will contain two classes - one that extends the `Phaser.Game` class, essentially acting as the container for our game to run in, and one that extends the `Phaser.State` class, which contains the working code for the game.

Remember that given that we are extending these existing classes, you need to run `super(...)` in the class `constructor() {...}` method to set parameters that you would normally set when instantiating a `Phaser.Game` object.

Create `Game`, a class extending `Phaser.Game`. Given that our whole game will run by instantiating a `new Game()` object, ideally which class method should all of the working code `Game` sit so that it executes?

Build the constructor of the `Game` class, and use `super(...)` to:

- Set the dimensions of the game. We recommend 400x490 pixels.
- Set the mode to `Phaser.AUTO`.

Create `Main`, a class extending `Phaser.State`. Within it, you should create blank `preload`, `create()`, and `update` class methods which are required for `Phaser.State` object behaviour.

(2)

Type the following into `preload` to configure the display:

```
// DISPLAY CONFIG
if(!this.game.device.desktop) {
  this.game.scale.scaleMode = Phaser.ScaleManager.SHOW_ALL;
  this.game.scale.setMinMax(this.game.width/2,
    this.game.height/2, this.game.width, this.game.height);
}
```

You'll notice that `this.game` is used as a reference to the currently running `Phaser.Game` instance in, which will correspond to our `Game` class. Using methods of `this.game` in a similar fashion:

- Set the background colour of the `stage`.
- From our assets folder, `load` in our bird and pipe images, and our jump audio (the sound when the bird flaps upwards).