🍓 **Projects**
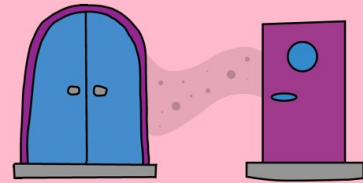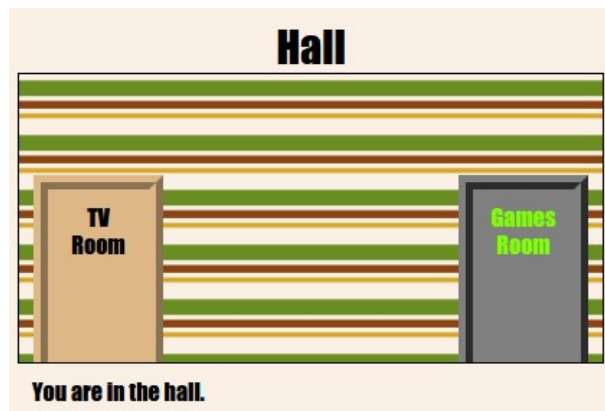
Linked Rooms

Create a web project with several 'rooms' linked together.

Step 1   Introduction

In this project, you'll create a set of linked rooms where each room is a different web page which you can decorate with HTML.

Instructions: Click the doors to move between rooms.

Additional information for club leaders

If you need to print this project, please use the **Printer friendly version (https://projects.raspberrypi.org/en/projects/linked-rooms/print)**.

ℹ Club leader notes

Introduction:

In this project, children are introduced to multiple linked web pages in the same project each with their own CSS file.

Online Resources

We recommend using **trinket (https://trinket.io/)** to write HTML & CSS online. This project contains the following trinket:

- **'Linked Rooms' starting point – jumpto.cc/web-rooms (https://trinket.io/html/f1486ddb24)**

Children can also make use of this blank trinket **(jumpto.cc/html-blank) (http://jumpto.cc/html-blank)** to write their own HTML & CSS, or alternatively they can use this template trinket **(jumpto.cc/html-template) (http://jumpto.cc/html-template)**.

There is also a trinket containing a sample solution to the challenges:

- **'Linked Rooms Finished' – https://trinket.io/html/ba5d27ec68 (https://trinket.io/html/eab49f4f06)**

Offline Resources

This project can be **completed offline (https://www.codeclubprojects.org/en-GB/resources/webdev-working-offline/)** if preferred. You can access the project resources by clicking the 'Project Materials' link for this project. This link contains a 'Project Resources' section, which includes resources that children will need to complete this project offline. Make sure that each child has access to a copy of these resources. This section includes the following files:

- linked-rooms/index.html
- linked-rooms/style.css
- linked-rooms/script.js
- linked-rooms/prefixfree.js
- linked-rooms/4 x .png images
- template/template.html
- template/style.css

You can also find a completed version of this project's challenges in the 'Volunteer Resources' section, which contains:

- linked-rooms-finished/index.html
- linked-rooms-finished/style.css
- linked-rooms-finished/script.js
- linked-rooms-finished/prefixfree.js
- linked-rooms-finished/4 x .png images

(All of the resources above are also downloadable as project and volunteer `.zip` files.)

Learning Objectives

- This project introduces projects with multiple html pages linked together
- Multiple CSS files are also introduced

This project covers elements from the following strands of the **Raspberry Pi Digital Making Curriculum (http://rpf.io/curriculum)**:

- **Design basic 2D and 3D assets (https://www.raspberrypi.org/curriculum/design/creator)**.

Challenges

- "Add another link" – Add a link between pages in the same project;
- "Style and link the Games Room" – Add a link and style a page with its own CSS file.
- "Add more doors!" – Use <div>s as clickable links
- "Add wallpaper to the Games Room" – Add a background image

- "Make it yours!" – Add more rooms using the skills learned
- "Add a key cursor" – A fun optional extra for those who complete the project

ℹ️ Project materials

Project resources

- **.zip file containing all project resources** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763 d88800b6bf96027571011919dd6/en/resources/rooms-project-resources.zip)
- **Online Trinket containing all 'Linked Rooms' project resources** (http://jumpto.cc/web-rooms)
- **Online Trinket template** (http://jumpto.cc/trinket-template)
- **Online blank Trinket** (http://jumpto.cc/trinket-blank)
- **template/index.html** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d88800b6bf9602 7571011919dd6/en/resources/template-index.html)
- **template/style.css** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d88800b6bf960275 71011919dd6/en/resources/template-style.css)
- **linked-rooms/index.html** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d88800b6bf9 6027571011919dd6/en/resources/linked-rooms-index.html)
- **linked-rooms/style.css** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d88800b6bf96 027571011919dd6/en/resources/linked-rooms-style.css)
- **linked-rooms/tvroom.html** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d88800b6bf 96027571011919dd6/en/resources/linked-rooms-tvroom.html)
- **linked-rooms/tvroom.css** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d88800b6bf9 6027571011919dd6/en/resources/linked-rooms-tvroom.css)
- **linked-rooms/wallpaper.png** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d88800b6 bf96027571011919dd6/en/resources/linked-rooms-wallpaper.png)
- **linked-rooms/space-invader.png** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d888 00b6bf96027571011919dd6/en/resources/linked-rooms-space-invader.png)
- **linked-rooms/tiles.png** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d88800b6bf96 027571011919dd6/en/resources/linked-rooms-tiles.png)
- **linked-rooms/star.png** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d88800b6bf960 27571011919dd6/en/resources/linked-rooms-star.png)
- **linked-rooms/stripes.png** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d88800b6bf 96027571011919dd6/en/resources/linked-rooms-stripes.png)

Club leader resources

- **.zip file containing all completed project resources** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56 236d1fd763d88800b6bf96027571011919dd6/en/resources/rooms-volunteer-resources.zip)
- **Online completed Trinket project** (https://trinket.io/html/eab49f4f06)
- **linked-rooms-finished/index.html** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d888 00b6bf96027571011919dd6/en/resources/linked-rooms-finished-index.html)
- **linked-rooms-finished/style.css** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d8880 0b6bf96027571011919dd6/en/resources/linked-rooms-finished-style.css)
- **linked-rooms-finished/tvroom.html** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d8 8800b6bf96027571011919dd6/en/resources/linked-rooms-finished-tvroom.html)
- **linked-rooms-finished/tvroom.css** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d88 800b6bf96027571011919dd6/en/resources/linked-rooms-finished-tvroom.css)
- **linked-rooms-finished/gamesroom.html** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd76 3d88800b6bf96027571011919dd6/en/resources/linked-rooms-finished-gamesroom.html)
- **linked-rooms-finished/gamesroom.css** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763 d88800b6bf96027571011919dd6/en/resources/linked-rooms-finished-gamesroom.css)
- **linked-rooms-finished/wallpaper.png** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d 88800b6bf96027571011919dd6/en/resources/linked-rooms-finished-wallpaper.png)
- **linked-rooms-finished/space-invader.png** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd7 63d88800b6bf96027571011919dd6/en/resources/linked-rooms-finished-space-invader.png)
- **linked-rooms-finished/tiles.png** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d8880 0b6bf96027571011919dd6/en/resources/linked-rooms-finished-tiles.png)
- **linked-rooms-finished/star.png** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d8880

0b6bf96027571011919dd6/en/resources/linked-rooms-finished-star.png)

- **linked-rooms-finished/stripes.png** (https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d88
800b6bf96027571011919dd6/en/resources/linked-rooms-finished-stripes.png)

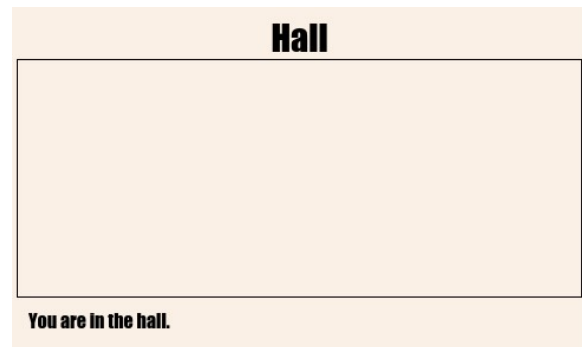## Step 2   Linking to another web page in the same project

Web projects can be made up of lots of HTML files linked together.

- Open this trinket: **jumpto.cc/web-rooms** **(https://trinket.io/html/f1486ddb24)**.

  The project should look like this:
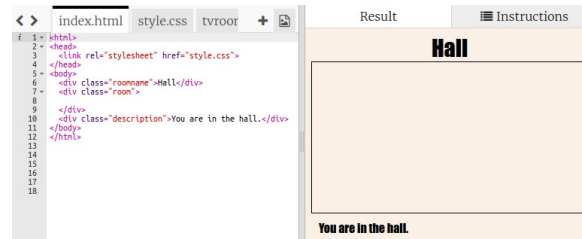
- The trinket should autorun and you will find yourself in the Hall:

- Look at the list of file tabs for this trinket. Can you see `tvroom.html`? Click on it.

  This is another html file in the same project.

- To get to `tvroom.html` you need to add a link in `index.html`.

  Add the highlighted code inside the `<div>` with the class `room`:
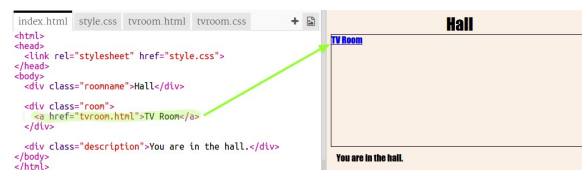
- Test your trinket by clicking on the **TV Room** link to see the `tvroom.html` webpage.

Note that `tvroom.html` also has its own `tvroom.css` style file which defines the layout for this page.
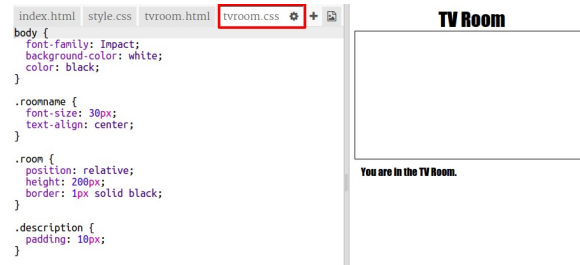
Step 3   Challenge: Add another link

Add an `<a>` link to the `tvroom.html` webpage to get you back to the Hall webpage which is called `index.html`. The link text should be 'Hall'.

The TV Room webpage should then have a clickable link like this:
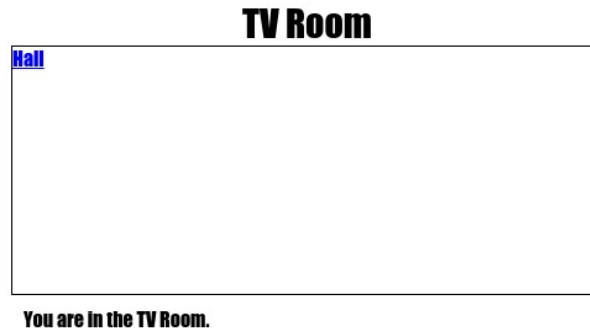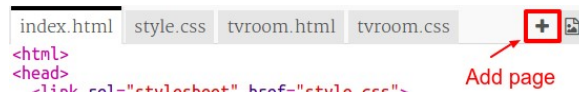

Make sure you test your code. You should be able to move from the Hall to the TV Room and back again by clicking on links.

Step 4   Add another room

Now let's add another room, a **Games Room**.

- Click on the add page **+** button:

  Type `gamesroom.html` as the page name:

  ```
  ![screenshot](https://projects-static.raspberrypi.org/projects/linked-rooms/c56236d1fd763d88800b6bf96027571011919dd6/en/images/rooms-
  games-html.png)
  ```

- The HTML for the **Games Room** is very similar to `tvroom.html` so **copy** that and **paste** it into `gamesroom.html`.

  Edit the highlighted items so they say Games not TV:

- Your `gamesroom.html` now uses `gamesroom.css` which doesn't exist yet.

  Create `gamesroom.css` by clicking on the add page **+** button.

- The CSS for the **Games Room** is very similar to `tvroom.css` so **copy** that and **paste** it into `gamesroom.css`.
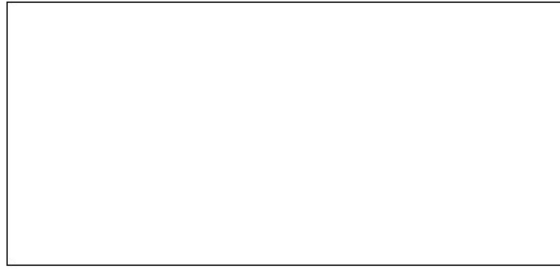

- Add a link from the Hall to the Games room:

- Test your project by clicking on the Games Room link

  The **Games Room** should look like this:

Games Room

You are in the Games Room.

Not very exciting, but you can fix that in the next challenge.

Step 5   Challenge: Style and link the Games Room

Edit the HTML and CSS for the **Games Room** so that the webpage looks like this:

Hint: You'll need to change the background colour, font colour and border colour in `gamesroom.css`. The bright green colour is called `chartreuse`.

Hint: You'll need to add an `<a>` link in `gamesroom.html` which links to `index.html`.

Step 6   Make the links look like doors

Links don't just have to be text. Let's make a clickable door using a `<div>`.

- Open `index.html` and add a `<div>` around the **TV Room** link text. It needs to be inside the `<a>` to make it clickable.

  Add `id="hall2tv"` to label it as the door from the Hall to the TV Room so that you can style the door.

  ```
  <div class="room">
    <a href="tvroom.html"><div id="hall2tv">TV Room</div></a>
    <a href="gamesroom.html">Games Room</a>
  </div>
  ```

- Click on the `style.css` tab, go to the bottom and add the following CSS to change the size and colour of the door:

  ```
  #hall2tv {
      width: 50px;
      height: 100px;
      display: inline-block;
      background-color: burlywood;
  }
  ```
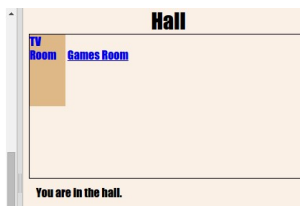
- Test your webpage by clicking anywhere on the door, not just on the text.

- Now let's make it look a bit more like a door by adding a border around three sides:

  ```
  #hall2tv {
      width: 50px;
      height: 100px;
      display: inline-block;
      background-color: burlywood;
      border: 10px ridge burlywood;
      border-bottom: none;
  }
  ```
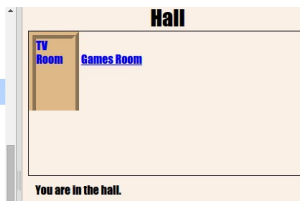
- And let's add some CSS to make the text on the door look better:

  ```
  #hall2tv {
      width: 50px;
      height: 100px;
      display: inline-block;
      background-color: burlywood;
      border: 10px ridge burlywood;
      border-bottom: none;
      padding: 10px;
      color: black;
      text-align: center;
  }
  ```
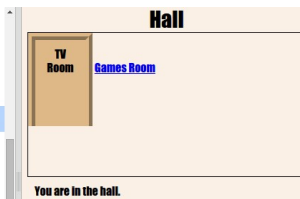
- You've probably noticed that the door is floating in the air. Let's fix that by positioning the door inside the room.

  ```
  #hall2tv {
      width: 50px;
      height: 100px;
      display: inline-block;
      background-color: burlywood;
      border: 10px ridge burlywood;
      border-bottom: none;
      padding: 10px;
      color: black;
      text-align: center;
      position: absolute;
      bottom: 0;
      left: 10;
  }
  ```
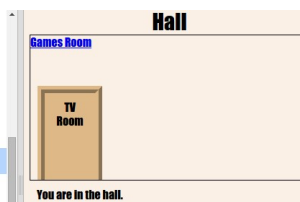
- Test your webpage by clicking on the door to get to the **TV Room**.

Step 7   Challenge: Add more doors!

Turn the other links in your project into doors in the same way.

For each door you'll need to:

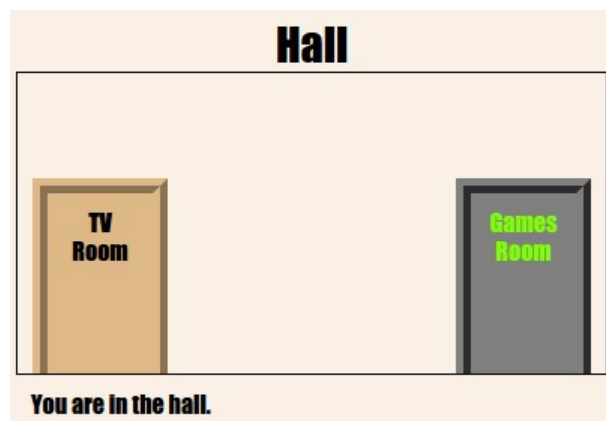- Edit the door link to use a `<div>` with an id such as `hall2games` so that you can style it.

  For example:
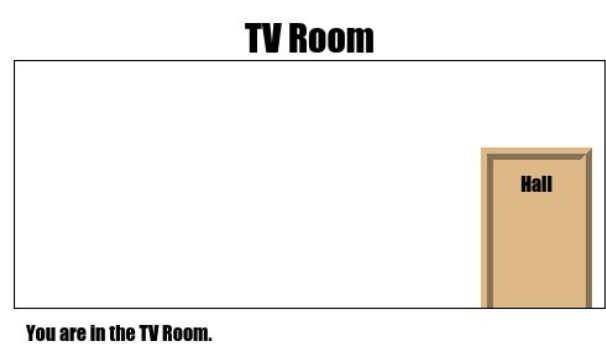
  ```
  <a href="gamesroom.html"><div id="hall2games">Games Room</div></a>
  ```

- Add CSS for the door id to the `.css` file for its room. Use *copy* and *paste* to save time. You can make each door look different if you like.

- Position the door using `bottom:` and `left:` or `right:`.

The Hall might look like this:

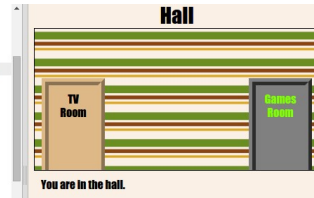The TV Room should look something like this:

Step 8   Adding a background image

Let's decorate the hall with a background image.

- Edit the `style.css` to add a background image to the Hall:

The image will be repeated to fill the whole room.

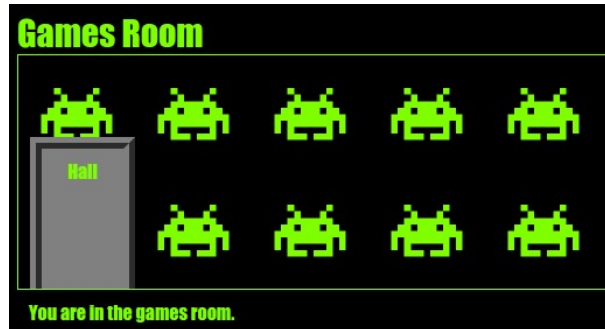## Step 9   Challenge: Add wallpaper to the Games Room

Can you decorate the games room with a background image?

You can use the `space-invader.png` background image which is included in your project.

You'll need to:

- Add a `background-image:` to the `.room` CSS for the Games Room.

The decorated room should look like this:

Step 10   Challenge: Make it yours!

Add more rooms to your project. Remember that you can use **copy** and **paste** to save time and then just change the things that need to be different.

For each room you will need to:

- Create a `.html` file
- Add door links to and from the new 'room'
- Create a `.css` file with the styles for your new room and its doors

You can change the `background-color:` for each room. Click on the images icon to see the background images you can choose from: