

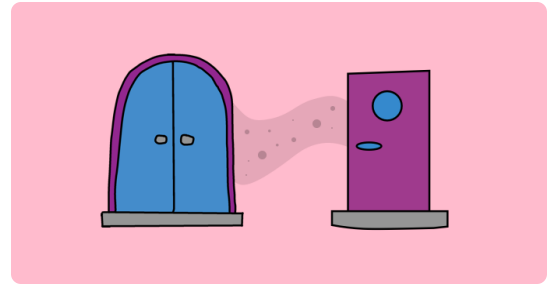


# Projects

## Linked Rooms

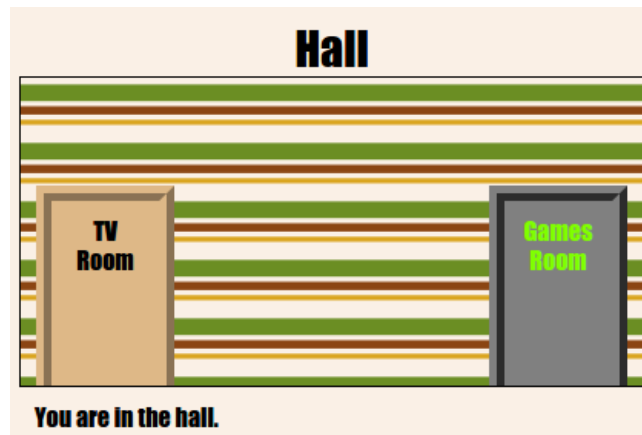
Create a web project with several 'rooms' linked together.

HTML / CSS



### 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>).



#### 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



## Project materials

### Project resources

- **.zip file containing all project resources** (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/rooms-project-resources.zip>)

- Online Trinket containing all 'Linked Rooms' project resources (<http://jump.to/cc/web-rooms>)
- Online Trinket template (<http://jump.to/cc/trinket-template>)
- Online blank Trinket (<http://jump.to/cc/trinket-blank>)
- template/index.html (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/template-index.html>)
- template/style.css (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/template-style.css>)
- linked-rooms/index.html (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-index.html>)
- linked-rooms/style.css (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-style.css>)
- linked-rooms/tvroom.html (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-tvroom.html>)
- linked-rooms/tvroom.css (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-tvroom.css>)
- linked-rooms/wallpaper.png (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-wallpaper.png>)
- linked-rooms/space-invader.png (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-space-invader.png>)
- linked-rooms/tiles.png (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-tiles.png>)
- linked-rooms/star.png (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-star.png>)
- linked-rooms/stripes.png (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-stripes.png>)

### Club leader resources

- **.zip file containing all completed project resources** (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/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/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-finished-index.html>)
- **linked-rooms-finished/style.css** (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-finished-style.css>)
- **linked-rooms-finished/tvroom.html** (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-finished-tvroom.html>)
- **linked-rooms-finished/tvroom.css** (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-finished-tvroom.css>)
- **linked-rooms-finished/gamesroom.html** (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-finished-gamesroom.html>)
- **linked-rooms-finished/gamesroom.css** (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-finished-gamesroom.css>)
- **linked-rooms-finished/wallpaper.png** (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-finished-wallpaper.png>)
- **linked-rooms-finished/space-invader.png** (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-finished-space-invader.png>)
- **linked-rooms-finished/tiles.png** (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474>)

[be9b8701be34dc9/en/resources/linked-rooms-finished-tiles.png](https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-finished-tiles.png))

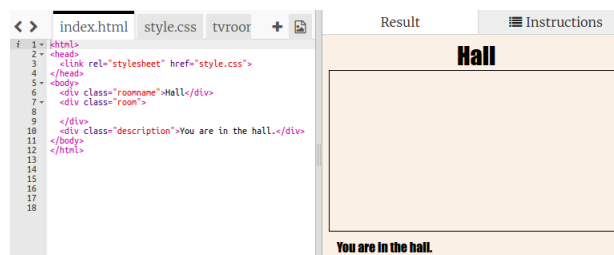
- **linked-rooms-finished/star.png** (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-finished-star.png>)
- **linked-rooms-finished/stripes.png** (<https://projects-static.raspberrypi.org/projects/linked-rooms/d849b87c1c57475cab6558474be9b8701be34dc9/en/resources/linked-rooms-finished-stripes.png>)

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

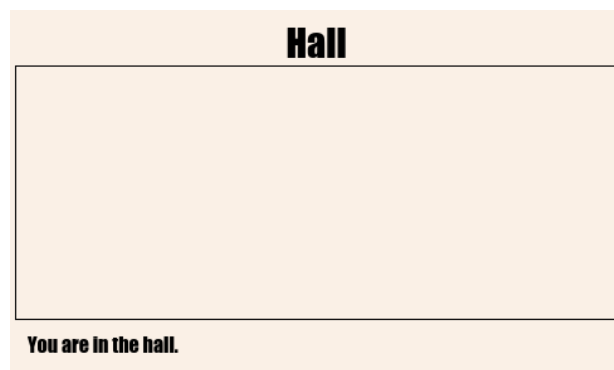
Web projects can be made up of lots of HTML files linked together.

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

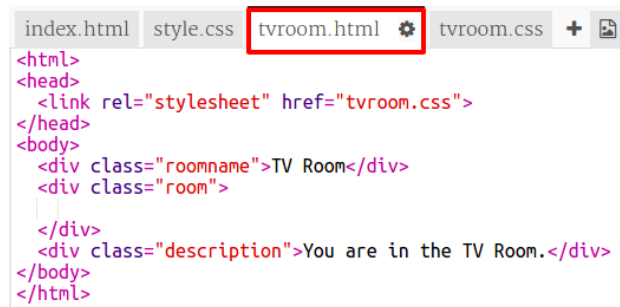
The project should look like this:



- The trinket should autorun and you will find yourself in the Hall:



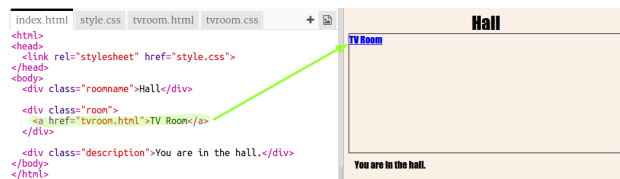
- Look at the list of file tabs for this trinket. Can you see `tvroom.html`? Click on it.



This is another html file in the same project.

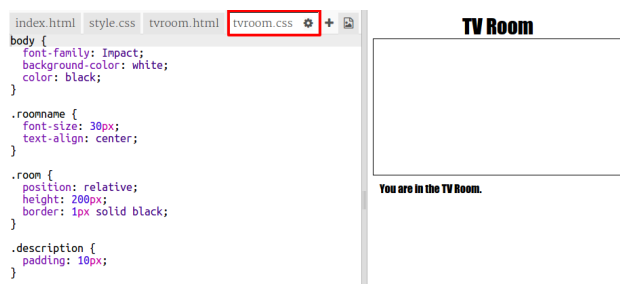
- To get to `tvroom.html` you need to add a link in `index.html`.

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.

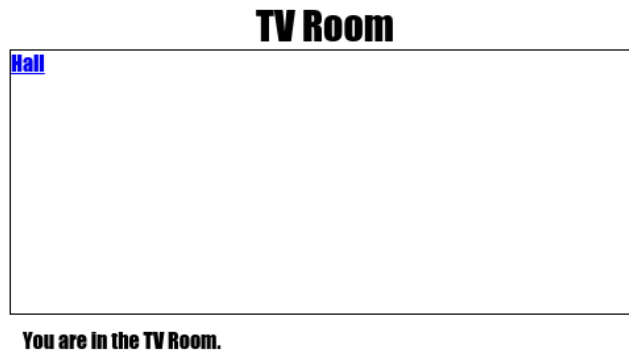
Note that `tvroom.html` also has its own `tvroom.css` style file which defines the layout for this page.



### 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

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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/d849b87c1c57475cab6558474be9b8701be34dc9/en/images/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`.



```

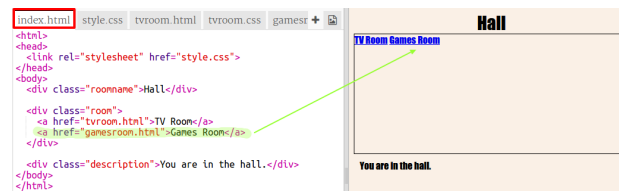
vroom.css  gamesroom.html  gamesroom.css  ⚙️ + 📄
body {
  font-family: Impact;
  background-color: white;
}

.roomname {
  font-size: 30px;
  text-align: center;
}

.room {
  position: relative;
  height: 200px;
  border: 1px solid black;
}

.description {
  padding: 10px;
}
  
```

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



```

index.html  style.css  tvroom.html  tvroom.css  gamesr + 📄
<html>
<head>
<link rel="stylesheet" href="style.css">
</head>
<body>
<div class="roomname">Hall</div>
<div class="room">
<a href="tvroom.html">TV Room</a>
<a href="gamesroom.html">Games Room</a>
</div>
<div class="description">You are in the hall.</div>
</body>
</html>
  
```

- Test your project by clicking on the Games Room link

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



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

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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:
- 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:
- And let's add some CSS to make the text on the door look better:
- You've probably noticed that the door is floating in the air. Let's fix that by positioning the door inside the room.

- 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

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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

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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:

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**View project & license on GitHub** (<https://github.com/RaspberryPiLearning/linked-rooms>)