

Mobile Web Application

Element 2:

A case study accompanies this assignment. The main outcome of this assignment is to gain knowledge on building web components based on polymer 1.0 or above I however have used polymer 3.0.

The use case I had chosen was a “Todo check-List” where a visitor of the website can go through a check list of a choice they make, my initial goal was to have a todo check-list where potential photographers can upload their images along with a description of the image in relation to what it is being uploaded for i.e, a news article. But I did not get around to completing the image upload and delete module. So I have kept it as a Todo check-list where a client can write a subject of however many characters they choose, and add it to their check-list, once the client has written their subject they will be shown a tick box which indicates a select method where they can then press a “Add Task” paper-button to add another one once they have submitted their original subject.

Once they have submitted their subject it is then passed through the system via data binding to switch to the “completed:” section.

The client then has the option if they needed to re-edit their post to select the check box previously stated, which would then pass it through back to its original state and keeps the subject as incomplete until selected so.

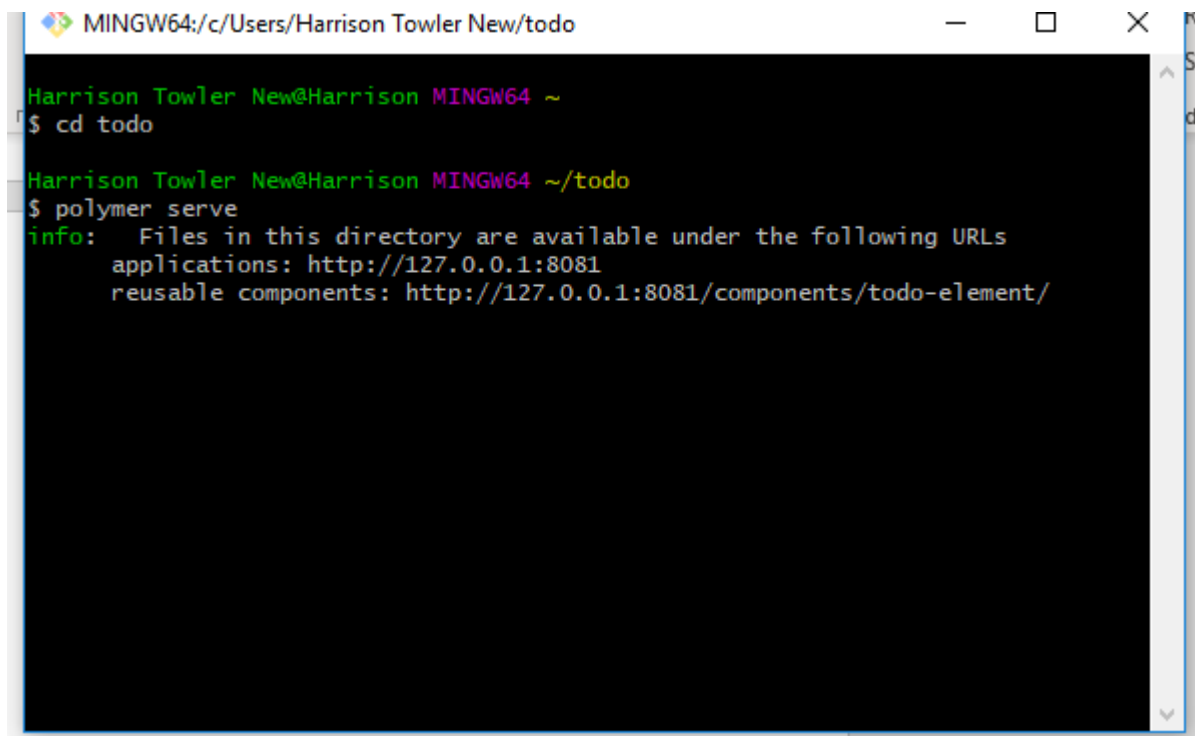
Double databinding is used within this web application as once you have submitted, you can change the subject but if you uncheck once submitted it goes back to its original state.

This is the case study I have chosen for “IT-in the Valley”

I have used Visual studio code for editing my software application, and to generate the Local host I used GIT BASH

The code will be presented below...

Name: Harrison Towler
SN:21325616

A screenshot of a MINGW64 terminal window. The title bar shows the path 'MINGW64:/c/Users/Harrison Towler New/todo'. The terminal text shows the user 'Harrison Towler New@Harrison' in a 'MINGW64' environment. The user enters '\$ cd todo', and the prompt changes to '~/todo'. Then, the user enters '\$ polymer serve', and the terminal displays an 'info' message: 'Files in this directory are available under the following URLs', followed by 'applications: http://127.0.0.1:8081' and 'reusable components: http://127.0.0.1:8081/components/todo-element/'.

When using gitbash I had to install Nodejs and polymer.

Firstly I had to make a directory for the files to be allocated, doing this I had to type “mkdir todo” which would establish a root file.

I would then have to change directory of gitbash to the “todo” file created by typing “cd todo”.

After installing jsnode from a webpage I can now proceed to download polymer which has its own specific command to directly download and install it which is “`npm install npm@latest -g`”

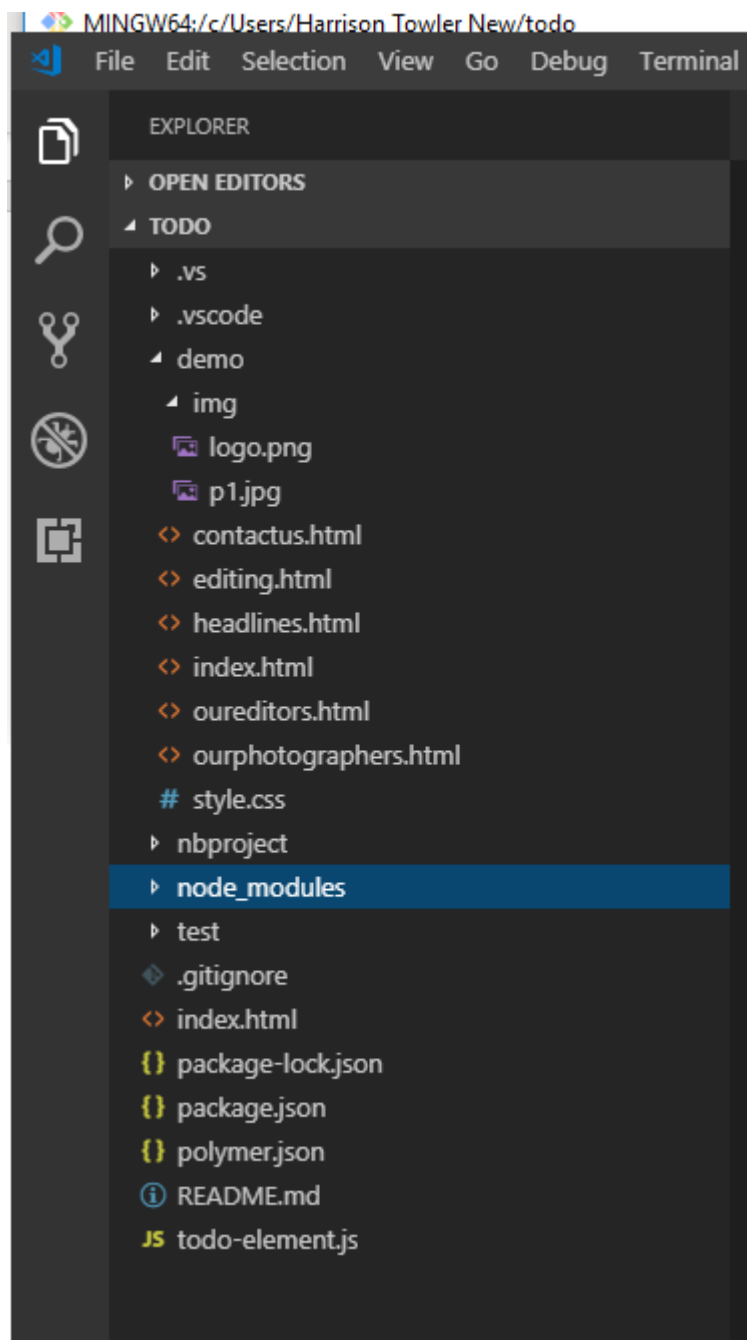
This also updates the file, we can then check which version we have by typing “git—version” to check if its been installed correctly.

Once this has been established we can type “polymer serve” which finally brings us to the localhost we can copy and paste int our web browser to get establish a connection.

Side note: the main index file for the homepage of the website is allocated in the todo file and then you have to go to the demo file. This is where all html files will be found for the main construction of the webpage in the source code.

As shown below:

Name: Harrison Towler
SN:21325616



CODE LISTING:

Under “**todo-element.js**”

This is where the databinding is found and will be listed below:

```
import {html, PolymerElement} from '@polymer/polymer/polymer-element.js';
import '@polymer/paper-button/paper-button.js';
import '@polymer/paper-checkbox/paper-checkbox.js';
import '@polymer/paper-input/paper-input.js';
import '@polymer/polymer/lib/elements/dom-repeat.js';

/**
 * `todo-element`
 *
 *
 * @customElement
 * @polymer
 * @demo demo/index.html
 */
class TodoElement extends PolymerElement {
  static get template() {
    return html`
      <style>
        :host {
          display: block;
        }
        .task{
          display: flex;
          align-items: center;
        }
        paper-input{
          display: inline-block;
        }

      </style>
      <h2>[[name]]</h2>
      <div class ="todo-list">
        <dom-repeat
          items={{tasks}}
          as="task"
          filter="isNotDone"
          observe="done">
          <template>
            <div class="task">
              <paper-checkbox checked="{{task.done}}"></paper-checkbox>
```

Name: Harrison Towler
SN:21325616

```
        <paper-input label="Task:" value="{{task.task}}"></paper-
input>
        </div>
    </template>
</dom-repeat>
<paper-button on-click="addTask">ADD TASK</paper-button>

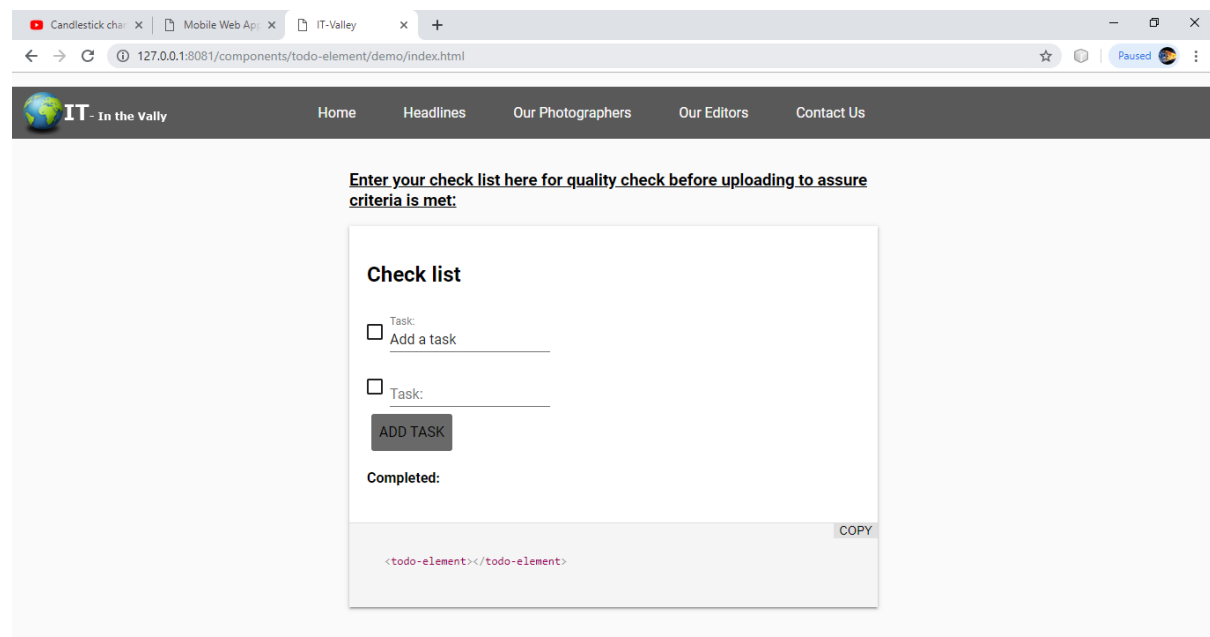
<h4> [[sub]]</h4>
<dom-repeat
  items={{tasks}}
  as="task"
  filter="isDone"
  observe="done">
  <template>
    <div class="task">
      <paper-checkbox checked="{{task.done}}"></paper-checkbox>
      <paper-input label="Task:" value="{{task.task}}"></paper-
input>
    </div>
  </template>
</dom-repeat>
</div>
`;
}
static get properties() {
  return {
    name: {
      type: String,
      value: 'Check list',
    },
    sub:{
      type:String,
      value: 'Completed:'
    },
    tasks:{
      type: Array,
      value: () => [{done:false,task:"Add a task"}]
    }
  };
}

addTask(){
  var oTask = {
    done: false,
    task: ''
  }
}
```

Name: Harrison Towler
SN:21325616

```
    this.push('tasks', oTask);  
  }  
  isNotDone(oTask){  
    return !oTask.done;  
  }  
  
  isDone(oTask){  
    return oTask.done;  
  }  
}  
  
window.customElements.define('todo-element', TodoElement);
```

Within the code we have used a number of things, one being a paper-button which after the demonstration I presented last week I was advised to make the paper-button more clearer for the viewer as it was white and blended in seamlessly within the background so it was not visible, this has now been amended within the CSS so it matches the nav bar colour to give a visual queue as to where it is.



We can see that the Title has been amended to “IT-valley” a shortened version of “IT- in the valley” to make it more visually pleasing to the viewer.

The website is also responsive so it can be used on mobile devices as well as desktop.

Name: Harrison Towler
SN:21325616

Another thing I discussed within the presentation was to use a platform called FIREBASE which would take my project and via cable I can show my responsive webpage on an actual physical device to really show the power of polymer components in action.

Unfortunately I was unable to get the time in to do so but I will make sure to add this to my next assignment in element 3 as it will give me invaluable knowledge.

To see the responsive website in action I will show the code listing and then the screenshot.

```
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, minimum-scale=1,
initial-scale=1, user-scalable=yes">

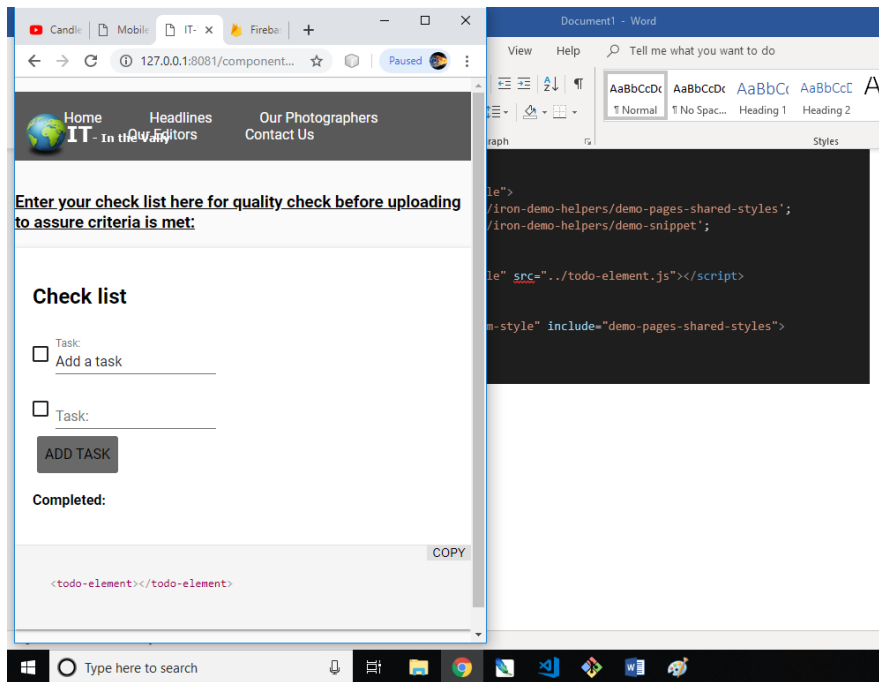
  <title>IT-Valley</title>
  <link rel="stylesheet" type="text/css" href="style.css">
  <script src="../../node_modules/@webcomponents/webcomponentsjs/webcomponents-
loader.js"></script>

  <script type="module">
    import '@polymer/iron-demo-helpers/demo-pages-shared-styles';
    import '@polymer/iron-demo-helpers/demo-snippet';
  </script>

  <script type="module" src="../../todo-element.js"></script>

  <custom-style>
    <style is="custom-style" include="demo-pages-shared-styles">
    </style>
  </custom-style>
</head>
```

Name: Harrison Towler
SN:21325616

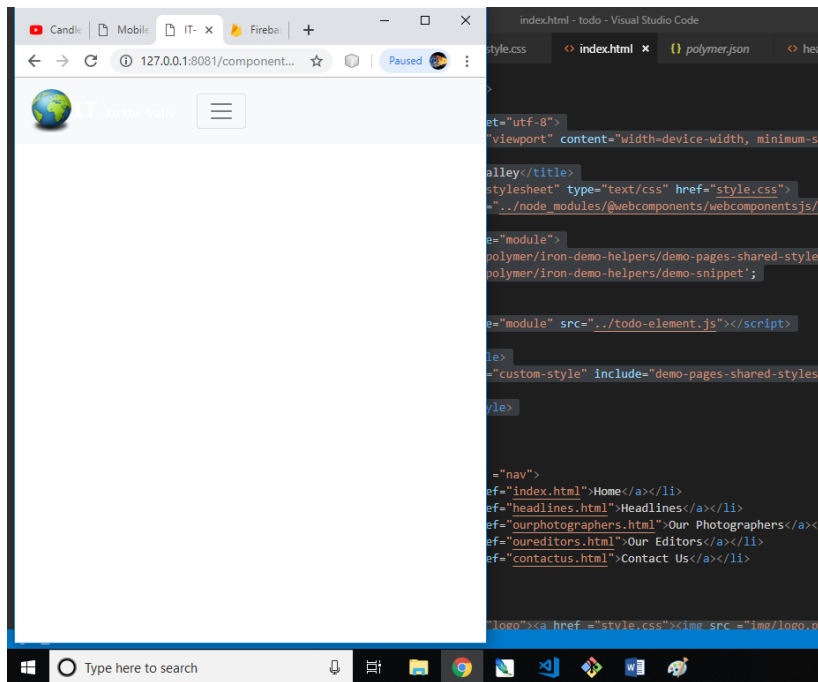


As seen it appears that there is a problem when minimizing the window frame with the nav bar and the links at the top seem to be not in a good order, this was amended on the other linked pages:

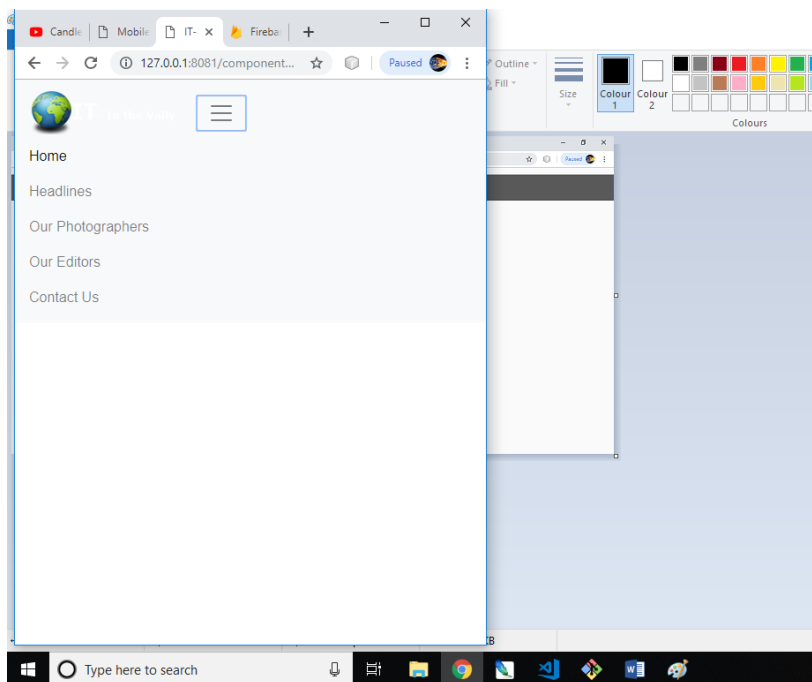
- headlines
- our editors
- our photographers
- contact us

This was achieved by using bootstrap shown below with the outcome:

Name: Harrison Towler
SN:21325616



We can see in the image below that there are no tabs as bootstrap code has ordered them within a drop-down tab as shown:



The code listing for bootstrap tab menu is:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>IT-In the Valley</title>
```

Name: Harrison Towler
SN:21325616

```
    <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></scrip
t>
    <script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js
"></script>
    <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></sc
ript>
    <script
src="https://use.fontawesome.com/releases/v5.0.8/js/all.js"></script>
    <link href="style.css" rel="stylesheet">
</head>
<body>

<!-- Navigation -->
<nav class="navbar navbar-expand-md navbar-light bg-light sticky-top">
<div class ="container-fluid">
    <a class="navbar-brand" href="#"></a>
    <button class="navbar-toggler" type="button" data-toggle="collapse"
data-target="#navbarResponsive">
        <span class="navbar-toggler-icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="navbarResponsive">
        <ul class="navbar-nav ml-auto">
```

This turns the entire website responsive. This is also linked within every page and tab which are all interlinked and will navigate within each other the code for this is also shown below:

```
<div class="collapse navbar-collapse" id="navbarResponsive">
    <ul class="navbar-nav ml-auto">

        <li class="nav-item active">
            <a class="nav-link" href="index.html">Home</a>
        </li>

        <li class="nav-item">
            <a class="nav-link"
href="headlines.html">Headlines</a>
        </li>

        <li class="nav-item">
            <a class="nav-link" href="ourphotographers.html">Our
Photographers</a>
        </li>
```

Name: Harrison Towler
SN:21325616

```
        <li class="nav-item">
          <a class="nav-link" href="oureditors.html">Our
Editors</a>

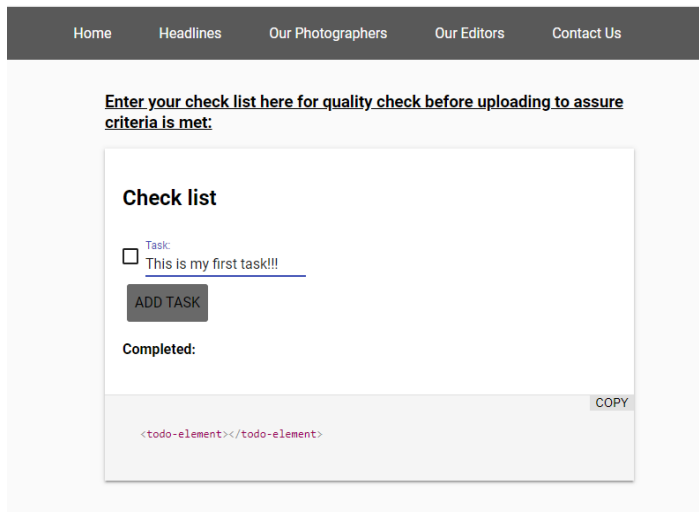
        </li>

        <li class="nav-item">
          <a class="nav-link" href="contactus.html">Contact
Us</a>

        </li>
      </ul>
    </div>
  </div>
</nav>
```

This is on every tab, a better way of coding this would to have href “#” a hashtag on the page I am already on, this works for a better standard of coding as opposed to referencing the original page im already on.

TODO-LIST, in action:



The screenshot shows a web application interface. At the top is a dark navigation bar with links: Home, Headlines, Our Photographers, Our Editors, and Contact Us. Below the navigation bar is a light gray area containing a form titled "Check list". The form has a text input field with the placeholder text "Enter your check list here for quality check before uploading to assure criteria is met:". Below the input field is a checkbox labeled "Task:" with the text "This is my first task!!!" next to it. To the right of the checkbox is an "ADD TASK" button. Below the checkbox and button is a "Completed:" label. At the bottom of the form is a "COPY" button. The form is enclosed in a light gray border.

When typing my first task “this is my first task!!!” we can see that nothing happens.

Once checked:

Name: Harrison Towler
SN:21325616

Enter your check list here for quality check before uploading to assure criteria is met:

Check list

ADD TASK

Completed:

☒ Task:
This is my first task!!!

COPY

```
<todo-element></todo-element>
```

We can now see the databinding has moved the input data to another section (completed)

Enter your check list here for quality check before uploading to assure criteria is met:

Check list

ADD TASK

Completed:

☒ Task:
This is skudfsdfsdfosiud

COPY

```
<todo-element></todo-element>
```

For testing purposes I have typed a random combination of letters to test if the double databinding has been set in motion, we can clarify this by clicking the blue check box again to bring it back to incomplete (if worked correctly the original task should stay the same as it was entered)

Enter your check list here for quality check before uploading to assure criteria is met:

Check list

ADD TASK

Completed:

☐ Task:
This is my first task!!!

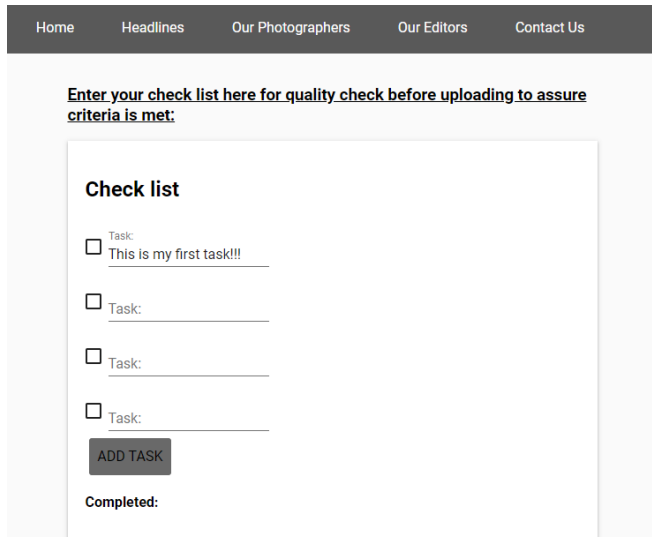
COPY

```
<todo-element></todo-element>
```

Name: Harrison Towler
SN:21325616

As we can see this has been in affect and worked correctly.

Demonstration of ADD TASK:



The screenshot shows a web application interface. At the top is a dark navigation bar with links: Home, Headlines, Our Photographers, Our Editors, and Contact Us. Below the navigation bar is a light gray box containing a checklist. At the top of this box is the text: "Enter your check list here for quality check before uploading to assure criteria is met:". Below this text is a section titled "Check list". Inside this section, there are four task entries, each consisting of a checkbox, the word "Task:", and a text input field. The first entry has the text "This is my first task!!" in the input field. Below the task entries is a dark gray button labeled "ADD TASK". At the bottom of the checklist section is the text "Completed:".

Once the paper-button has been clicked it adds another element you can use in the checklist, these all work separately and do not interfere with one another.

All related JSON files can be found within the zipped source code, along with all html files and javascript.

If anything where to go wrong with the uploading of the code I will place it on my public github where the link is:

[Github.com/Harrisontowler](https://github.com/Harrisontowler)

Name: Harrison Towler
SN:21325616

Name: Harrison Towler
SN:21325616

FULL CODE LISTING:

Index.html :

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, minimum-scale=1,
initial-scale=1, user-scalable=yes">

    <title>IT-Valley</title>
    <link rel="stylesheet" type="text/css" href="style.css">
    <script src="../../node_modules/@webcomponents/webcomponentsjs/webcomponents-
loader.js"></script>

    <script type="module">
      import '@polymer/iron-demo-helpers/demo-pages-shared-styles';
      import '@polymer/iron-demo-helpers/demo-snippet';
    </script>

    <script type="module" src="../../todo-element.js"></script>

    <custom-style>
      <style is="custom-style" include="demo-pages-shared-styles">
      </style>
    </custom-style>
  </head>
  <body>

    <ul class="nav">
      <li><a href="index.html">Home</a></li>
      <li><a href="headlines.html">Headlines</a></li>
      <li><a href="ourphotographers.html">Our Photographers</a></li>
      <li><a href="oureditors.html">Our Editors</a></li>
      <li><a href="contactus.html">Contact Us</a></li>

    </ul>
    <div class="logo"><a href="style.css"></a>
    <div class="vertical-section-container centered">

      <h3><u>Enter your check list here for quality check before uploading to
assure criteria is met:</u></h3>
      <demo-snippet>
        <template>
          <todo-element></todo-element>
```

Name: Harrison Towler
SN:21325616

```
        </template>
    </demo-snippet>
</div>
</body>
</html>
```

Headlines.html :

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>IT-In the Valley</title>
    <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></scrip
t>
    <script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js
"></script>
    <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></sc
ript>
    <script
src="https://use.fontawesome.com/releases/v5.0.8/js/all.js"></script>
    <link href="style.css" rel="stylesheet">
</head>
<body>

<!-- Navigation -->
<nav class="navbar navbar-expand-md navbar-light bg-light sticky-top">
<div class ="container-fluid">
    <a class="navbar-brand" href="#"></a>
    <button class="navbar-toggler" type="button" data-toggle="collapse"
data-target="#navbarResponsive">
        <span class="navbar-toggler-icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="navbarResponsive">
        <ul class="navbar-nav ml-auto">
```


Name: Harrison Towler
SN:21325616

```
        <li class="nav-item active">
            <a class="nav-link" href="index.html">Home</a>
        </li>

        <li class="nav-item">
            <a class="nav-link"
href="headlines.html">Headlines</a>
        </li>

        <li class="nav-item">
            <a class="nav-link" href="ourphotographers.html">Our
Photographers</a>
        </li>

        <li class="nav-item">
            <a class="nav-link" href="oureditors.html">Our
Editors</a>
        </li>

        <li class="nav-item">
            <a class="nav-link" href="contactus.html">Contact
Us</a>

        </li>
    </ul>
</div>
</div>
</nav>
```

Contactus.html :

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>IT-In the Valley</title>
    <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></scrip
t>
```

Name: Harrison Towler
SN:21325616

```
<script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js
"></script>
<script
src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></sc
ript>
<script
src="https://use.fontawesome.com/releases/v5.0.8/js/all.js"></script>
<link href="style.css" rel="stylesheet">
</head>
<body>

<!-- Navigation -->
<nav class="navbar navbar-expand-md navbar-light bg-light sticky-top">
<div class="container-fluid">
  <a class="navbar-brand" href="style.css"></a>
  <button class="navbar-toggler" type="button" data-toggle="collapse"
data-target="#navbarResponsive">
    <span class="navbar-toggler-icon"></span>
  </button>
  <div class="collapse navbar-collapse" id="navbarResponsive">
    <ul class="navbar-nav ml-auto">

      <li class="nav-item active">
        <a class="nav-link" href="index.html">Home</a>
      </li>

      <li class="nav-item">
        <a class="nav-link" href="headlines.html">Headlines</a>
      </li>

      <li class="nav-item">
        <a class="nav-link" href="ourphotographers.html">Our
Photographers</a>
      </li>

      <li class="nav-item">
        <a class="nav-link" href="oureditors.html">Our Editors</a>
      </li>

      <li class="nav-item">
        <a class="nav-link" href="contactus.html">Contact Us</a>
      </li>

    </ul>

  </div>
</div>
```

Name: Harrison Towler
SN:21325616

```
</div>  
</nav>
```

Oureditors.html :

```
<!DOCTYPE html>  
<html lang="en">  
<head>  
  <meta charset="utf-8">  
  <meta name="viewport" content="width=device-width, initial-scale=1">  
  <title>IT-In the Valley</title>  
  <link rel="stylesheet"  
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">  
  <script  
src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></scrip  
t>  
  <script  
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js  
></script>  
  <script  
src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></sc  
ript>  
  <script  
src="https://use.fontawesome.com/releases/v5.0.8/js/all.js"></script>  
  <link href="style.css" rel="stylesheet">  
</head>  
<body>  
  
<!-- Navigation -->  
<nav class="navbar navbar-expand-md navbar-light bg-light sticky-top">  
<div class ="containter-fluid">  
  <a class="navbar-brand" href="#"></a>  
  <button class="navbar-toggler" type="button" data-toggle="collapse"  
data-target="#navbarResponsive">  
    <span class="navbar-toggler-icon"></span>  
  </button>  
  <div class="collapse navbar-collapse" id="navbarResponsive">  
    <ul class="navbar-nav ml-auto">  
  
      <li class="nav-item active">  
        <a class="nav-link" href="index.html">Home</a>  
      </li>
```

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SN:21325616

```
        <li class="nav-item">
            <a class="nav-link"
href="headlines.html">Headlines</a>
        </li>

        <li class="nav-item">
            <a class="nav-link" href="ourphotographers.html">Our
Photographers</a>
        </li>

        <li class="nav-item">
            <a class="nav-link" href="oureditors.html">Our
Editors</a>
        </li>

        <li class="nav-item">
            <a class="nav-link" href="contactus.html">Contact
Us</a>
        </li>
    </ul>
</div>
</div>
</nav>
```

Ourphotographers.html :

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>IT-In the Valley</title>
    <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></scrip
t>
    <script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js
"></script>
    <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></sc
ript>
    <script
src="https://use.fontawesome.com/releases/v5.0.8/js/all.js"></script>
    <link href="style.css" rel="stylesheet">
```

Name: Harrison Towler
SN:21325616

```
</head>
<body>

<!-- Navigation -->
<nav class="navbar navbar-expand-md navbar-light bg-light sticky-top">
<div class ="containter-fluid">
    <a class="navbar-brand" href="#"></a>
    <button class="navbar-toggler" type="button" data-toggle="collapse"
    data-target="#navbarResponsive">
        <span class="navbar-toggler-icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="navbarResponsive">
        <ul class="navbar-nav ml-auto">

            <li class="nav-item active">
                <a class="nav-link" href="index.html">Home</a>
            </li>

            <li class="nav-item">
                <a class="nav-link"
href="headlines.html">Headlines</a>
            </li>

            <li class="nav-item">
                <a class="nav-link" href="ourphotographers.html">Our
Photographers</a>
            </li>

            <li class="nav-item">
                <a class="nav-link" href="oureditors.html">Our
Editors</a>
            </li>

            <li class="nav-item">
                <a class="nav-link" href="contactus.html">Contact
Us</a>
            </li>

        </ul>
    </div>
</div>
</nav>
```

Style.css :

```
@import url('https://fonts.googleapis.com/css?family=Poppins:400,500,700');
```

Name: Harrison Towler
SN:21325616

```
/*---Media Queries ---*/
@media (max-width: 992px) {

}
@media (max-width: 768px) {

}
@media (max-width: 576px) {

}

/*---Firefox Bug Fix ---*/
.carousel-item {
  transition: -webkit-transform 0.5s ease;
  transition: transform 0.5s ease;
  transition: transform 0.5s ease, -webkit-transform 0.5s ease;
  -webkit-backface-visibility: visible;
  backface-visibility: visible;
}
/*--- Fixed Background Image ---*/
figure {
  position: relative;
  width: 100%;
  height: 60%;
  margin: 0!important;
}
.fixed-wrap {
  clip: rect(0, auto, auto, 0);
  position: absolute;
  top: 0;
  left: 0;
  width: 100%;
  height: 100%;
}
#fixed {
  background-image: url('img/mac.png');
  position: fixed;
```

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```
display: block;
top: 0;
left: 0;
width: 100%;
height: 100%;
background-size: cover;
background-position: center center;
-webkit-transform: translateZ(0);
    transform: translateZ(0);
will-change: transform;
}
/*--- Bootstrap Padding Fix ---*/
[class*="col-"] {
    padding: 1rem;
}

body {
    margin: 0;
    padding: 0;
    font-family: 'Arial', 'serif';
}

.nav {
    background-color: #595959;
    color: #ffffff;
    list-style: none;
    text-align: center;
    padding: 20px 0 20px 0;
}

.nav > li {
    display: inline-block;
    padding-right: 50px;
}

.nav > li > a {
    text-decoration: none;
    color: #ffffff;
}

.nav > li > a:hover {
    color: #c1c1c1;
}
```

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```
}

paper-button {
  background: green;
}

.logo img{
  position: absolute;
  margin-left: 10px;
  margin-top: -69px;
}
```

Todo-element.js :

```
import {html, PolymerElement} from '@polymer/polymer/polymer-element.js';
import '@polymer/paper-button/paper-button.js';
import '@polymer/paper-checkbox/paper-checkbox.js';
import '@polymer/paper-input/paper-input.js';
import '@polymer/polymer/lib/elements/dom-repeat.js';

/**
 * `todo-element`
 *
 *
 * @customElement
 * @polymer
 * @demo demo/index.html
 */
class TodoElement extends PolymerElement {
  static get template() {
    return html`
      <style>
        :host {
          display: block;
        }
        .task{
          display: flex;
          align-items: center;
        }
        paper-input{
          display: inline-block;
        }

      </style>
```


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```
<h2>[[name]]</h2>
  <div class ="todo-list">
    <dom-repeat
      items={{tasks}}
      as="task"
      filter="isNotDone"
      observe="done">
      <template>
        <div class="task">
          <paper-checkbox checked="{{task.done}}"></paper-checkbox>
          <paper-input label="Task:" value="{{task.task}}"></paper-
input>

          </div>
        </template>
      </dom-repeat>
      <paper-button on-click="addTask">ADD TASK</paper-button>

    </div>

    <h4> [[sub]]</h4>
    <dom-repeat
      items={{tasks}}
      as="task"
      filter="isDone"
      observe="done">
      <template>
        <div class="task">
          <paper-checkbox checked="{{task.done}}"></paper-checkbox>
          <paper-input label="Task:" value="{{task.task}}"></paper-
input>

          </div>
        </template>
      </dom-repeat>
    </div>
  `;
}
static get properties() {
  return {
    name: {
      type: String,
      value: 'Check list',
    },
    sub:{
      type:String,
      value: 'Completed:'
    },
    tasks:{
      type: Array,
```

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```

        value: () => [{done:false,task:"Add a task"}]
    }
};
}

addTask(){
    var oTask = {
        done: false,
        task: ''
    }
    this.push('tasks', oTask);
}

isNotDone(oTask){
    return !oTask.done;
}

isDone(oTask){
    return oTask.done;
}
}

window.customElements.define('todo-element', TodoElement);

```

package.json :

```
{
  "_from": "@polymer/polymer@^3.0.0",
  "_id": "@polymer/polymer@3.2.0",
  "_inBundle": false,
  "_integrity": "sha512-L6uV1oM6T6xbwbVx6t3biG5T2VSSB03LxnIrUd9M2pr6RkHVPFHJ37pC5MUwBAEhkGFJif7eks7fdMMSGZTeEQ==",
  "_location": "/@polymer/polymer",
  "_phantomChildren": {},
  "_requested": {
    "type": "range",
    "registry": true,
    "raw": "@polymer/polymer@^3.0.0",
    "name": "@polymer/polymer",
    "escapedName": "@polymer%2fpolymer",
    "scope": "@polymer",
    "rawSpec": "^3.0.0",
    "saveSpec": null,
    "fetchSpec": "^3.0.0"
  },
}
```

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```
"_requiredBy": [
  "/",
  "/@polymer/iron-demo-helpers",
  "/@polymer/iron-flex-layout",
  "/@polymer/iron-location",
  "/@polymer/iron-marked-element",
  "/@polymer/iron-prism-element"
],
"_resolved": "https://registry.npmjs.org/@polymer/polymer/-/polymer-3.2.0.tgz",
"_shasum": "b41fddec4ecac63b12936b93726678d23add7afd",
"_spec": "@polymer/polymer@^3.0.0",
"_where": "C:\\Users\\manea\\todo",
"author": {
  "name": "The Polymer Project Authors"
},
"bugs": {
  "url": "https://github.com/Polymer/polymer/issues"
},
"bundleDependencies": false,
"dependencies": {
  "@webcomponents/shadycss": "^1.8.0"
},
"deprecated": false,
"description": "The Polymer library makes it easy to create your own web components. Give your element some markup and properties, and then use it on a site. Polymer provides features like dynamic templates and data binding to reduce the amount of boilerplate you need to write",
"devDependencies": {
  "@polymer/gen-closure-declarations": "^0.5.0",
  "@polymer/gen-typescript-declarations": "^1.5.1",
  "@polymer/iron-component-page": "^3.0.0-pre.12",
  "@polymer/test-fixture": "^3.0.0-pre.12",
  "@webcomponents/webcomponentsjs": "^2.2.7",
  "babel-eslint": "^7.2.3",
  "babel-preset-minify": "^0.2.0",
  "del": "^3.0.0",
  "dom5": "^3.0.1",
  "eslint-plugin-html": "^4.0.6",
  "fs-extra": "^5.0.0",
  "google-closure-compiler": "^20180204.0.0",
  "gulp": "^4.0.0",
  "gulp-babel": "^6.1.2",
  "gulp-eslint": "^4.0.0",
  "gulp-if": "^2.0.1",
  "gulp-replace": "^0.6.1",
  "gulp-size": "^3.0.0",
  "gulp-vulcanize": "^7.0.0",

```

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```
"lazypipe": "^1.0.2",
"merge-stream": "^1.0.1",
"parse5": "^4.0.0",
"polymer-build": "^3.1.0",
"polymer-cli": "^1.9.4",
"through2": "^2.0.0",
"typescript": "^2.9.2",
"wct-browser-legacy": "^1.0.2"
},
"directories": {
  "doc": "docs",
  "test": "test"
},
"files": [
  "externs",
  "lib",
  "*.d.ts",
  "index.html",
  "polymer-*.js",
  "manifest.json"
],
"homepage": "https://github.com/Polymer/polymer",
"license": "BSD-3-Clause",
"main": "polymer-element.js",
"name": "@polymer/polymer",
"publishConfig": {
  "access": "public"
},
"repository": {
  "type": "git",
  "url": "git+https://github.com/Polymer/polymer.git"
},
"resolutions": {
  "inherits": "2.0.3",
  "samsam": "1.1.3",
  "supports-color": "3.1.2",
  "type-detect": "1.0.0"
},
"scripts": {
  "build": "gulp",
  "generate-types": "gen-typescript-declarations --outDir . --deleteExisting  
--verify && gulp generate-externs",
  "lint": "gulp lint",
  "prepare": "npm run generate-types",
  "regen-package-lock": "rm -rf node_modules package-lock.json; npm  
install",
  "serve": "polymer serve --npm --module-resolution=node",
  "test": "npm run lint && polymer test --npm --module-resolution=node"
```

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```
},  
  "version": "3.2.0"  
}
```

Demo-pages-share-styles.js

```
/**  
@license  
Copyright (c) 2015 The Polymer Project Authors. All rights reserved.  
This code may only be used under the BSD style license found at  
http://polymer.github.io/LICENSE.txt The complete set of authors may be found  
at  
http://polymer.github.io/AUTHORS.txt The complete set of contributors may be  
found at http://polymer.github.io/CONTRIBUTORS.txt Code distributed by Google  
as  
part of the polymer project is also subject to an additional IP rights grant  
found at http://polymer.github.io/PATENTS.txt  
*/  
  
import '@polymer/polymer/polymer-legacy.js';  
import '@polymer/iron-flex-layout/iron-flex-layout.js';  
import '@polymer/font-roboto/roboto.js';  
import {html} from '@polymer/polymer/lib/utils/html-tag.js';  
  
const template = html`  
<dom-module id="demo-pages-shared-styles">  
  <template>  
    <style>  
      body {  
        font-family: 'Roboto', 'Noto', sans-serif;  
        font-size: 16px;  
        margin: 0;  
        padding: -10px;  
        background-color: #fafafa;  
      }  
  
      .horizontal-section-container {  
        @apply --layout-horizontal;  
        @apply --layout-center-justified;  
        @apply --layout-wrap;  
      }  
  
      .vertical-section-container {  
        @apply --layout-vertical;  
        @apply --center-justified;  
      }  
    </style>  
  </template>  
</dom-module>
```

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```
    }

    .centered {
      max-width: 600px;
      margin-left: auto;
      margin-right: auto;
    }

    demo-snippet.centered-demo {
      --demo-snippet-demo: {
        @apply --layout-horizontal;
        @apply --layout-wrap;
        @apply --layout-center-justified;
      };
    }
  </style>
</template>
</dom-module>
`;

template.setAttribute('style', 'display: none;');
document.head.appendChild(template.content);
```