be building a website bookmarking

application using pure JavaScript

using html5 local storage to store

our bookmarks

using bootstrap using one of the default

templates

we have a little

bit of validation if we try to submit

this it's going to say please fill in

the form

all right now if we put in a name and

then we put something that's not a URL

and submit please use a valid URL all

right so let's do HTTP twitter.com and

submit and you'll see that gets added

alright and if I reload it's still there

even if I were to exit out of the

browser and come back it's still going

to be there all right we can actually

see if we go to our google chrome tools

and

go to application local storage file

you can see we have a bookmarks key and

we're storing a string app

our string of

adjacent object array that has all the

bookmarks

we're going to do

is create the UI here which is very

simple

well we're going to go to get bootstrap

and let's go ahead and just download it

which I've already done quite a few

times and let's create our folder okay

so I'm just going to create a folder on

my desktop and we're going to call this

book marker okay let's create let's

create an index.html file okay that'll

be the only HTML file this is a single

page application and then let's open up

the bootstrap zip file okay we're going

to bring over all of these folders and

let's clean it up a little bit in the

CSS all we want is bootstrap let's use

bootstrap mndot CSS so that's the only

one we want we can delete the rest all

right and then in j/s we just want

bootstrap minjae s okay so that's that

now let's open up index.html I'm going

to use Adam for my text editor but you

of course you can use whatever you'd

like I'm going to open that folder as a

project let's see it's on my desktop

bookmarker alright so if we go to get

bootstrap and let's go to getting

started and then examples and we're

going to use this right here this narrow

Jumbotron template so if we click on

that it'll open it up and what we want

to do is just do a control you we're

going to grab all the source for that

copy it and paste it in our index file

alright so let's go up to the top here

and just kind of work our way down all

right so we want this stuff we can

delete this comment down to here if we

don't need that and let's change the

title will say site

bookmarker now for the link to the

bootstrap min CSS we just want to get

rid of this disc right here okay it

should just be CSS slash bootstrap dot

min and then we can delete the rest of

the stuff that's in the head okay just

make this really simple and let's see as

far as the markup this is a single page

application so we don't need the nav so

let's get rid of the UL right here get

rid of that project name we'll change

that to bookmarker okay um let's see

Jumbotron heading let's actually let's

actually make this an h2 and we'll say

bookmark your favorite sites okay I'm

just going to come kind of going through

the markup really quick because the the

main focus of this is the JavaScript you

guys probably know this if you don't

know HTML or bootstrap I would suggest

watching some of my recent videos on

both I have an HTML 5 web site video and

also a couple new bootstrap videos

alright so in here let's get rid of

those paragraphs and we're going to put

a form okay so we'll say form and we're

going to give it an ID let's just call

it my form and inside here let's put a

div with a class of form group okay and

inside here we'll put a label this will

be the site name

and then we'll put an input give it a

type of text and let's give it a class

of form control so that it goes across

the whole element we also want to give

it an ID I'm going to give it an ID of

site name and we'll give it a

placeholder and we'll just say enter

let's go just say website name okay so

that's our first input let's copy that

form group div paste it underneath and

this one is going to be the site URL

we'll change the ID to site URL and

change this to website URL okay then we

just need our button so let's do button

and we're going to give it a type of

submit okay and let's see what else

let's give it a class bootstrap class

BTN and BTN - primary that'll make it a

blue color just say submit alright so

there's our form now for the the row

down here you'll see that it's using the

grid system it's using two six column

divs what we want is just one twelve

column okay one that goes across the

whole thing so let's change this to

twelve and we can get rid of this six

column one all right and then down in

the footer let's just change this will

just say bookmarker and down at the

bottom we need to link our JavaScript so

we can get rid of this ie10 thing all

right so we need to link our bootstrap

javascript file so script source

and that's in the j/s folder slash

bootstrap dot Minjae s now we also need

jQuery if we're going to use the

bootstrap j/s so let's just grab the

jQuery CDN okay jQuery code jQuery comm

we'll just click on the version three

uncompressed and let's grab this script

tag okay we'll put that make sure you

have it above the bootstrap okay and

then we're also going to have a

JavaScript file that we work in which

will be called main j/s so let's link

that okay

and that should do it now in this row

here this is where our results are going

to be or you know the bookmarks that are

stored in local storage so all we need

here is a div with an ID that we can

latch on to later and output okay so

we're going to call this bookmarks

results alright and that should do it

for the mock-up all we need to include

our style sheet that we're going to

create so under the bootstrap style

sheet let's put in style dot CSS alright

so we'll save that now if we were to

open this up in chrome it should look

like this now notice that it's not

formatted exactly like this is that's

because this actually uses an extra

stylesheet so again let's do a control

you and you'll see there's a file called

jumbotron narrow dot CSS we're going to

click on that and then we're going to

just grab this CSS here okay copy it and

then in our CSS folder we're going to

create our style dot CSS file

okay and any extra styles that you have

you can put in this file let's open that

in Adam okay style.css I'm going to

paste that in alright so now let's go

back to our site and reload and now it

looks more like the demo so the

interface is complete okay

now we're going to move on to the java

script which is the important part so

the first thing I want to do is I want

to be able to submit our site to local

storage all right so we need to have an

event on this on this form on this

submit so what we'll do is let's go into

our main j/s actually we need to create

it first so main dot j/s and just to

make sure that this is working let's

just say alert one and if we reload we

get one all right so we want to create a

listener here so let's say listen for

form submit and what we want to do is we

want to target the form okay so if we

look at it it has an ID of my form

camelcase

so what we can do here is we can say

document dot get element by ID and then

we can pass in here my form okay because

we gave it an ID of my form and then

what we want to do is we want to add an

event listener so we can say dot add

event listener okay and then that's

going to take in some parameters that's

going to take in the actual event you

want to listen for which is going to be

a submit okay it's a form so it has a

submit and then we want to put in the

function that we want to call when that

happens which is going to be called save

bookmark alright so let's go ahead and

create that

so we'll say function save bookmark

and let's test it out by just doing a

console dot log and we'll just say it

works

okay so let's save that and now you're

going to hit f12 to open up chrome tools

or Firefox tools whenever you're using

and let's go ahead and click Submit now

notice that if you look here when I

click it it does say it works but it

flashes really quick and it goes away

the reason that's happening is because

the form is actually submitting to the

page and we don't want that we want to

kind of stop it so that we can work with

it now the way that we do that is when

we call this function we can actually

pass in an event parameter here and one

of the methods that we can use on that

is prevent default which prevents the

default behavior of the form so we can

say e dot prevent default like that all

right so now let's go back and reload

and submit and now you can see it says

it works and it doesn't flash it just

stays there if I keep clicking it it

just keeps happening okay it just adds

one to that so that's what we want now

the next thing we want to do is we want

to get the values that we pass in here

okay when we put something in here we

want to be able to grab these all right

so let's get rid of the console.log and

make sure you keep this prevent default

let's actually put a comment so they

prevent prevent form from submitting

okay let's put a comment here to say

save bookmark okay so we want to create

two variables for our form values so

let's just say get form values and we're

gonna say var now I'm just going to use

es 5 here I'm not going to use wet or

Const because I don't want to have to

set up any you know I don't have to set

up babble or anything like that so

and you should know es 5 syntax if

you're just learning JavaScript anyway

all right so we're going to save our and

we'll call this site name and we're

going to set that to document dot get

element by ID okay we want to get site

name because remember that input we

created right here has an ID of site

name all right now let's see what that

gives us if we were to console dot log

it

okay so we'll reload we'll just put

something in here and submit and you can

see it actually logs the entire element

ok the input tag and everything now we

want to get the value that's typed in

not the actual elements so what we can

do is just add on to this and say dot

value all right so let's go ahead and

reload that and type something in and

submit and now you can see we're getting

the actual value all right so we want to

do that for the site name and the site

URL so let's go ahead and put that in

there site URL all right now when we

submit to local storage when we save

this we're going to save it as an array

of objects all right so we want to

create an object that we want to get an

object ready to submit to local storage

so we're going to create another

variable here called bookmark and we'll

set it to it an object which is

formatted in curly braces all right and

then it's going to have a name which

we'll set to site name and then a URL

which will set to site URL okay so let's

go ahead and console.log that

okay so if we said Google and we put

HTTP Google com submit you'll see that

now we're see we're getting an object

with a name and a URL okay so that's

what we want to submit to local storage

so local storage what I'm going to do is

just give you a quick example here local

storage test and the way that this works

is it stores strings okay local storage

only store strings but I'm going to show

you how we can actually parse the JSON

into a string save it and then when we

need to get it back we can parse it back

to Jason okay it's only a matter of

running it through a single function

alright so to set something in local

storage we just want to say local

storage there's no external libraries or

anything it's part of the html5 standard

so we're going to say local storage dot

set item okay and then you can choose a

key to save as I'm just going to say

test that's the key and then the value

let's just say hello world

all right so that'll actually save the

text hello world as test in local

storage so let's go ahead and save that

and let's reload and we're just going to

does n't matter what we put in here

because we're saving it as test anyway

so submit now nothing happens because

we're not outputting local storage

anywhere but we can check it if we go to

our tools here and go to application and

then local storage click on this file

you'll see we now have test and hello

world okay and we can delete from here

as well just delete both of those and

now if I reload that local storage value

is gone now if we want to get an item

what I do if we want to get an item we

can say local storage dot get item and

we want to get test okay let's actually

console.log that

all right so now if we reload and

obviously to run this we have to submit

and we get hello world okay it's

fetching it from local storage now if we

want to delete from local storage you

can say local storage dot remove item

test so now when we submit this form

it's going to set the item it's going to

console.log it and then delete it and

then let's console.log it again just to

show you that it's gone okay we'll save

that reload submit okay so it logs it

and then it removes it and then it's

null alright so that's how local storage

works we're just gonna I'm going to keep

this here for you guys but I'm going to

comment out alright so moving on we what

we want to do is we want to save this

bookmark that we created in local

storage but before we do that we have to

actually see if there's if there's a

bookmark value there alright because if

it is there then we have to fetch it add

to it and then save it again so we're

going to put an if statement here and

we're going to say if local storage dot

you get item and we want to check for an

item called bookmarks all right and we

want to check to see if that's null so

we want to do a triple equals no all

right so if it's no then that means that

we need to initialize an array so we'll

create an array called bookmarks right

and let's just put a comment here

let's put a comment here test alright so

what we want to do is take this variable

and we want to call dot push that's

going to add to the array our bookmark

that's come that we created up here with

the form values all right so we'll go

like that and then finally we want to

set to local storage because right now

it's just a local array so to do that

we'll say local storage dot set item we

want to set it as bookmarks and we have

our bookmark that we want to add now our

bookmarks sorry

now we if we do this this is actually a

adjacent array we need to save it as a

string so we're just going to wrap it in

a function called jason dot stringify

all right and that'll actually take our

jason array and turn it into a string

before we save it in local storage so

let's go ahead and save this now this

should run because we don't have

anything in bookmarks yet it is null so

it should run and it should store it so

let's say google and we'll save our link

here and click Submit and now let's go

to application local storage file and

you'll see that it's stored here okay

it's a string formatted JSON array so

that's what we want now if we want to

add something else we have to do we have

to tweak this a little bit so we're

going to put an else here okay so this

this is if there is something in

bookmarks then what do we do first thing

we want to fetch it from local storage

all right so let's say get

bookmarks from local storage we can do

that with local storage dot get item

let's see get item bookmarks and we want

to put this into a variable alright now

remember it stores strings so this is

going to be a string and we don't want

that we want to parse it as Jason so we

want to run it through a function called

Jason dot parse alright so just remember

that json dot parse will turn a string

into jason or back into jason jason

stringify will turn it into a string

alright you just want to kind of you

know alternate those whether you're

setting are getting from local storage

unless of course you're actually storing

strings all right so now we have

whatever is in that local storage inside

this variable so what we want to do is

we want to add the bookmark that we're

submitting to that array alright so say

add bookmark to array and we do that

with bookmarks dot push and bookmark ok

and we're just talking about this up

here so we add it to the array and then

what we want to do is set it back to

local storage alright so we're going to

kind of reset it back to local storage

and we can do that with the same command

right here just like that alright so

let's go ahead and save that and reload

and now let's say we want to add

facebook ok submit and then let's take a

look down here

and we have another another value in our

array with the name of Facebook in the

URL facebook.com okay so that's working

fine our values are being stored how we

want alright so the next thing we want

to do is we want to be we want to show

those bookmarks down here okay

everything that's in local storage we

want to display so to do that we're

going to create another function so

let's go underneath save bookmark okay

we'll call this fetch bookmarks okay

that actually has to have a function

keyword all right so to do this let's

see what we want to do is create a

variable called bookmarks actually we

want to do the same thing right here

we're just fetching it from local

storage okay and then let's just console

dot log for now like that now we need a

way for this to run because right now

we're just defining it so what I'm going

to do is go to index dot HTML and on the

body tag I'm just going to put an onload

and set that to fetch bookmarks all

right so now when we reload that should

run automatically so let's open up the

console and reload and you can see it's

getting the the local storage bookmarks

all right so that's what we want now

remember we have this div called

bookmarks results that's where we want

to put them after we fetch them so let's

go back to our fetch bookmarks function

we'll get rid of that and let's say

kids Oh put ID so we'll create a

variable called bookmarks results set

it's a document dot get element by D

bookmarks results okay and then what we

want to do is build our output so we'll

take that bookmarks results variable and

we'll say dot inner HTML equals nothing

alright now I can put anything here

let's just say hello and then save that

and if we go back and reload you'll see

that hello is being put there okay so

we're getting the ID with

document.getelementbyid d and then this

inner HTML is just going to do just that

it's going to put whatever HTML that we

give it into that spot okay through

JavaScript so we actually want to set

this to just nothing for now alright and

then what we want to do is loop through

the bookmarks that are in local storage

and then output them one by one inside

of a div okay so we're going to use a

for loop and I should have mentioned

this at the beginning of the video but

if you're not comfortable with loops and

stuff like that I would definitely

suggest my JavaScript fundamentals for

beginners video where I go through the

very very basics of JavaScript loops and

functions and all that I should have

mentioned that at the beginning all

right so we're going to save our I

equals 0 all right and I'm going to say

as long as I is less than bookmarks dot

length okay so the amount of bookmarks

which in our case right now is two and

then we want to I plus plus we want to

increment it after each time all right

and then in here let's create a variable

called name and we can get that with

bookmarks we want the current iteration

so we're going to put

I hear and then dot name all right then

we want the URL bookmarks I dot URL okay

so now we have the name and URL for each

bookmark now we're going to build the

output so we're going to say bookmark

results dot inner HTML now this time

we're appending to it all right

if you wanted to put a div or something

here you could and you could append to

it by doing plus equals okay so we want

to append to it and let's say div

actually know what let's just test it

out first and we'll just put name okay

which is this right here so let's save

it and now you can see that it's looping

through when it's outputting each

bookmark name which we have Google and

Facebook all right so that's good we

know that's working so we basically want

to create a div block here so let's do

div and we're going to give it a class

of well which is a bootstrap class

that'll give us a gray background and a

border and some padding and then I want

to format this nicely so what we'll do

is go on to it we'll put a plus sign to

concatenate and then we'll go on to a

new line all right and then we're going

to have an h3 okay and then we're going

to concatenate the name plus sign will

go on to a new line okay and then let's

put let's see let's end the H actually

you know what yeah well end the h3

because we're going to be put in the

buttons or the links inside of the h3 as

well all right and then we want to end

that well div so we'll go on to the next

line and put if all right so let's try

that

and there we go good so for the buttons

we're going to use links and then just

format them as buttons with bootstrap

so we want to go under want to go right

here and put a space and then we'll say

a give it a class BTN BTN default I want

it to open in a new window so we're

going to say target equals underscore

blank and then we want our H ref all

right now the H ref is going to be the

URL that's coming from local storage so

we're going to put single quotes inside

the double quotes and then concatenate

the URL all right and then we just want

to end that opening a tag and then close

it and then here we'll just say visit

okay let's input a space right there so

let's save it and reload and now we have

a visit button if I click that it brings

us to the website all right we also want

a delete button so what I'll do is this

needs to have a put a plus sign here

copy this whole line and we're going to

give this one a class of button danger

to make it read and let's see this text

we're going to change that to delete and

then the H ref is just going to be a

number sign because it's not actually

going to go anywhere we're actually

going to call a function okay so we want

to put in an on click okay we want to

say on click and we're going to call a

function called delete bookmark okay now

we want to pass in the URL here and this

is this is a little weird we have to

escape the quotes and we escaped with

the backslash all right and then we also

want to concatenate the URL so we need

another quote and then a plus sign put

the URL in plus sign

and then we need another escape like

that all right so that should work

that's going to pass in the URL to this

delete bookmark all right so let's go

ahead and save that make sure it shows

up okay if I click delete

it's it's not going to do anything it

just reloads the page we need to create

the delete bookmark function all right

so let's put that right here so say

function delete bookmark ok remember

that's going to take in a URL and let's

just do console.log URL

alright look so let's go ahead and click

delete - UPS what's going on here oh I

have it set to target blank we don't

want that so the delete shouldn't have

the target attribute all right so now I

click delete and you'll see that it

shows the the URL so that's what we want

now to delete what we need to do is

first fetch the bookmarks from local

storage then we want to loop through

them and then check to see if the

current one we're looping through

matches this URL if it does we're going

to splice it out and then we're going to

reset local storage all right so let's

say yes okay so bar bookmarks actually I

can just copy this right here all right

so basically all of this consists of

just grabbing it from local storage

changing it the way we want and then

resetting it all right so now let's loop

through bookmarks so for bar I equals 0

as long as I is less than bookmarks dot

length and then I plus plus okay and

then what we want to do is do an if

statement and we want to say if the

current iteration so bookmarks high URL

is equal to the URL that's passed in up

here then we know that's the one we want

to delete so we'll say remove from array

and we do that with bookmarks dot splice

okay we want to splice at the the

current iteration and we want to splice

out one from that all right and then all

we have to do after that is reset the

local storage and we want to do that

under the loop okay so right here and we

can just grab this alright so that will

reset the local storage after we delete

it so let's save that alright so if we

go down here we click delete now it's

still there

but if I reload it goes away the reason

that's happening is it's deleting it

after it fetches the bookmarks so what

we want to do is just call fetch

bookmarks again alright so we'll just

say re fetch bookmarks and we just have

to say fetch bookmarks just like that

and we should also do this after we add

a bookmark so let's copy that and go to

our add bookmarks our save bookmark and

we'll put that right here alright so now

let's try to add let's say Twitter and

HTTP Twitter submit okay there it is

reload it's still there and then I click

delete and it goes away reload and it's

still gone all right so that's that now

the next thing I want to do is just take

care of the validation all right then I

think that's pretty much the last thing

we have all right because right now if I

submit you'll see it's gonna save an

empty bookmark and we don't want that

that's stupid

so let's um go up to our save bookmark

all right and we're going to go let's

see right after here and we'll say if

not site name or not site URL okay so if

neither one if either one of these are

not here then we want to alert will say

please fill in the form

all right now in order for it to stop

we're going to just return false okay

because we don't want it to keep going

so let's try that we'll reload and if we

submit we get please fill in the form

and it doesn't submit all right so

that's good now we also want to add an

another rule here that this has to be a

URL has to be formatted with HTTP all

right so to do that we can use a regular

expression all right now regular

expressions I'm not going to go over

them but basically it's some kind of

pattern matching you want to match some

kind of pattern and there's there's

predefined regular expressions for email

addresses and URLs we just need to find

one so let's say regex

URL and right here what is a good

regular expression to match a URL this

is actually the one I used so go down to

this answer here and right right here we

have a good code block of just that so

what I'm going to do is grab these two

lines and copy them okay I'm going to

paste that in so right here we're

setting the expression this is a regular

expression to format a URL okay which is

very long and very just a very annoying

looking and then what we want to do is

create a variable called regex or

whatever you want and set it to new reg

XP and pass in that expression

okay so that'll actually create the the

regular expression

and then what we want to do as you can

see here they said if whatever they want

to match dot match pass in regex if

that's successful they're alerting

success if not they're learning not so

we want to call this match all right so

let's go back and go if I will say if

site URL dot match and then pass in

regex all right we actually want to test

to see if it doesn't match so we're

going to say we're going to put an

exclamation there so that's saying if it

doesn't match then we want to alert

please use a valid URL okay and then we

just want to return false so let's give

it a shot

so if we say Twitter and we just try to

add Twitter and submit please use a

valid URL good all right but if we say

Twitter and then HTTP twitter.com submit

it works okay so that's good now

what I would do in this situation is

create a separate function for the

validation so let's copy that from this

if statement down to here and we're

going to cut that out and then let's go

down to the bottom and create a new

function called validate form and then

we're going to paste that in

okay and let's say we want to return

false if you know if that happens return

false if this happens if we get to the

end and it passes we just want to return

true all right and then that way we can

go back up to where we had it and we can

basically say if so if not validate form

and we need to pass in the site name its

site URL which I need to add down there

in a minute

then we want to return false okay and we

need to add that down here

okay so validate form constant a site

name and a site URL all right so let's

save it submit please fill in the form

good just put something and put

something that's not a URL and we get

please use a valid URL all right so

we're just about done on the last thing

I want to do is I want to clear the form

after we submit it so that's really

simple we're just going to go down or up

- we'll go right here and we'll say

clear form and we'll grab the document

dot get element by D we want to grab the

form which has an idea of my form and

then we can call dot reset that will

reset the form all right so one last try

here let's say Facebook HTTP Facebook

submit and the form clears it gets added

all right so that's our application

hopefully you guys learned a bit from

this we hit quite a few aspects of

JavaScript and like you guys asked no

angular or framework or

not even jQuery or any any external

library alright just straight JavaScript

and html5 so I will give you guys a link

to the code also if you like this then

check out my 10 projects in JavaScript

and jQuery course where we create simple

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I'm sure someone else will be able to

help alright so thanks for watching guys

and I will see you next time

English (auto-generated)