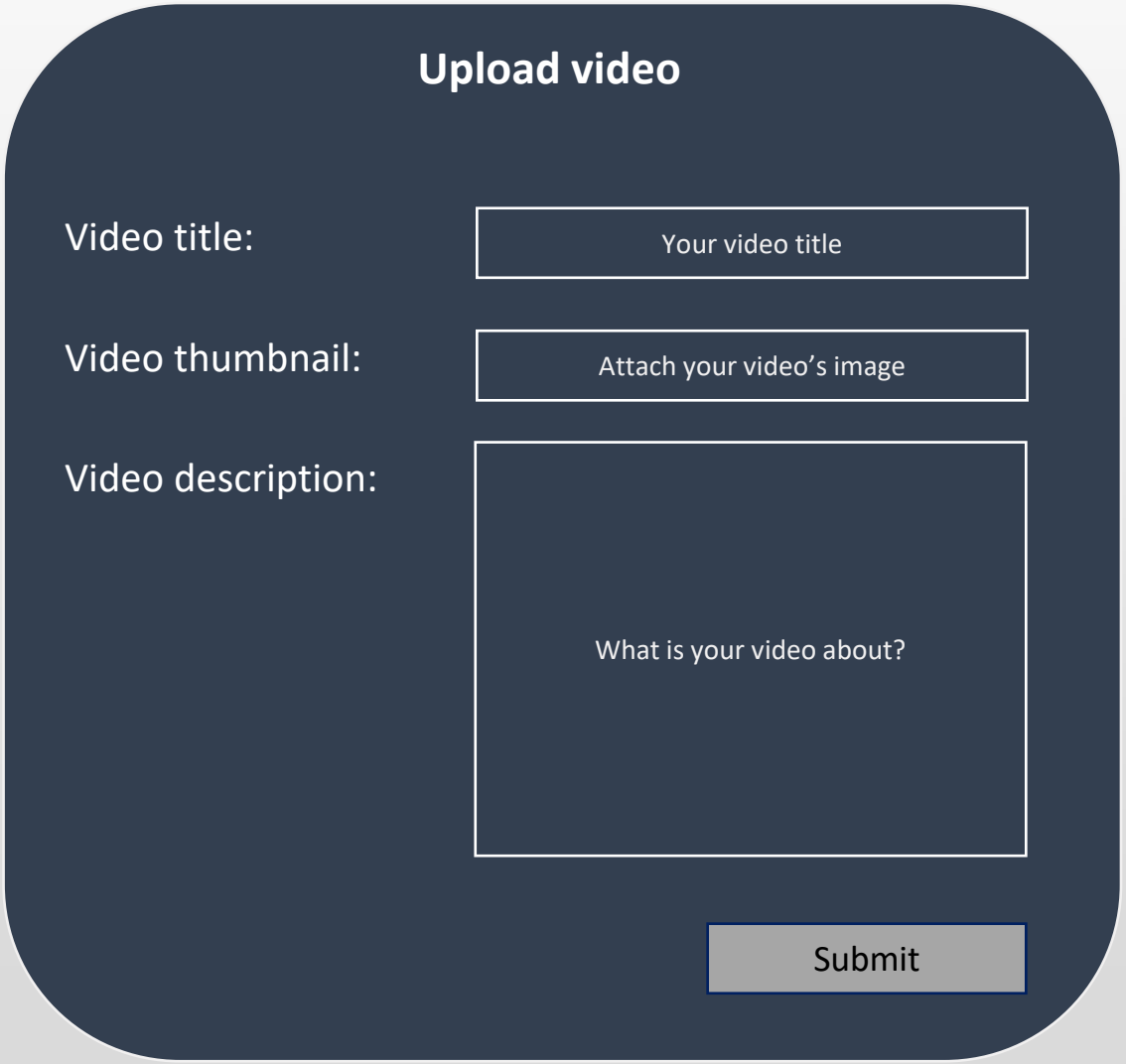
SYNCHRONOUS CODE

Browsers can be synchronous or asynchronous

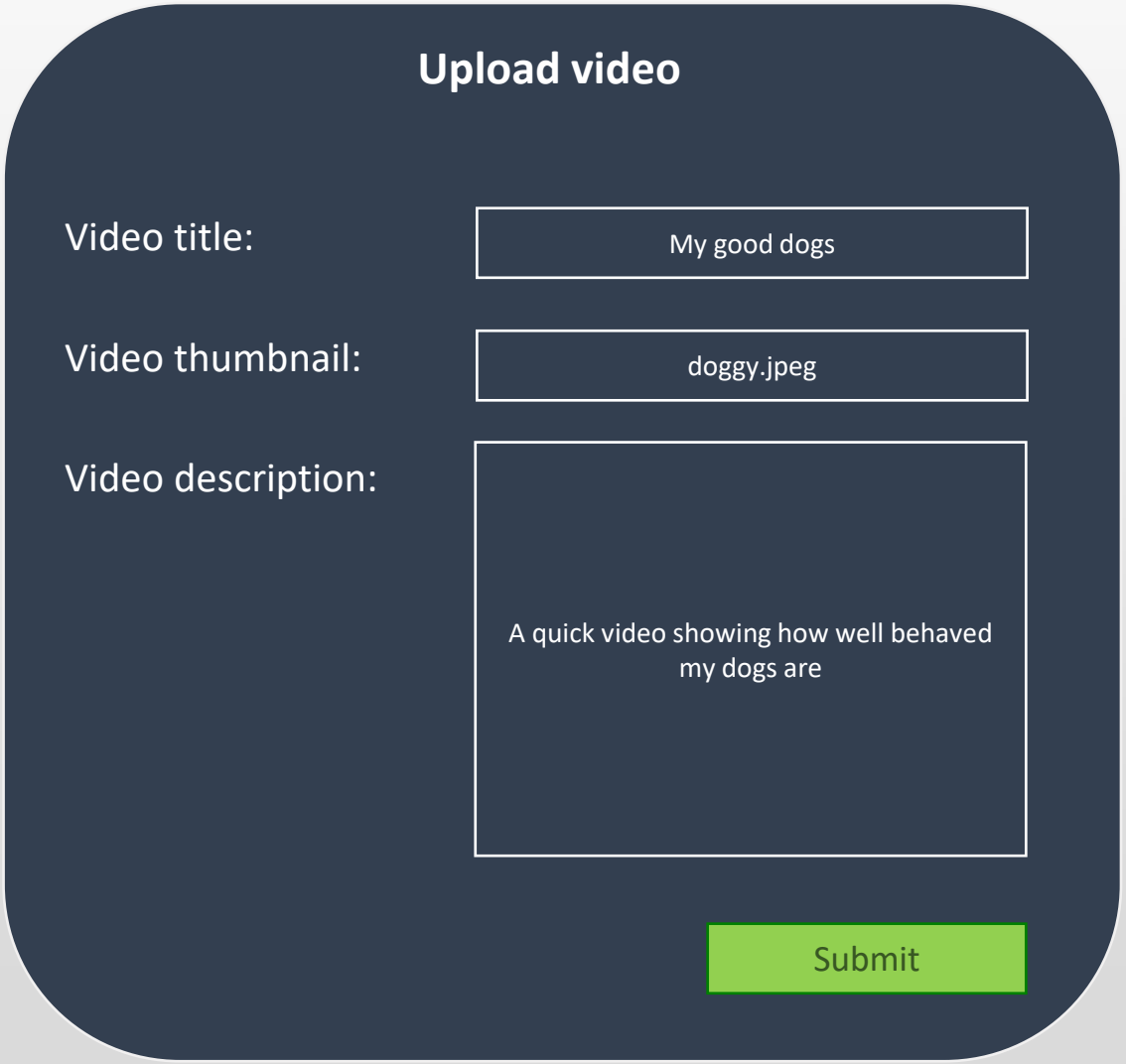
Servers can too, but let's focus on the browser

Synchronous code ➔ if I perform a task, I have to wait until that process / task / function is complete

SYNCHRONOUS CODE



SYNCHRONOUS CODE



SYNCHRONOUS CODE

Upload video

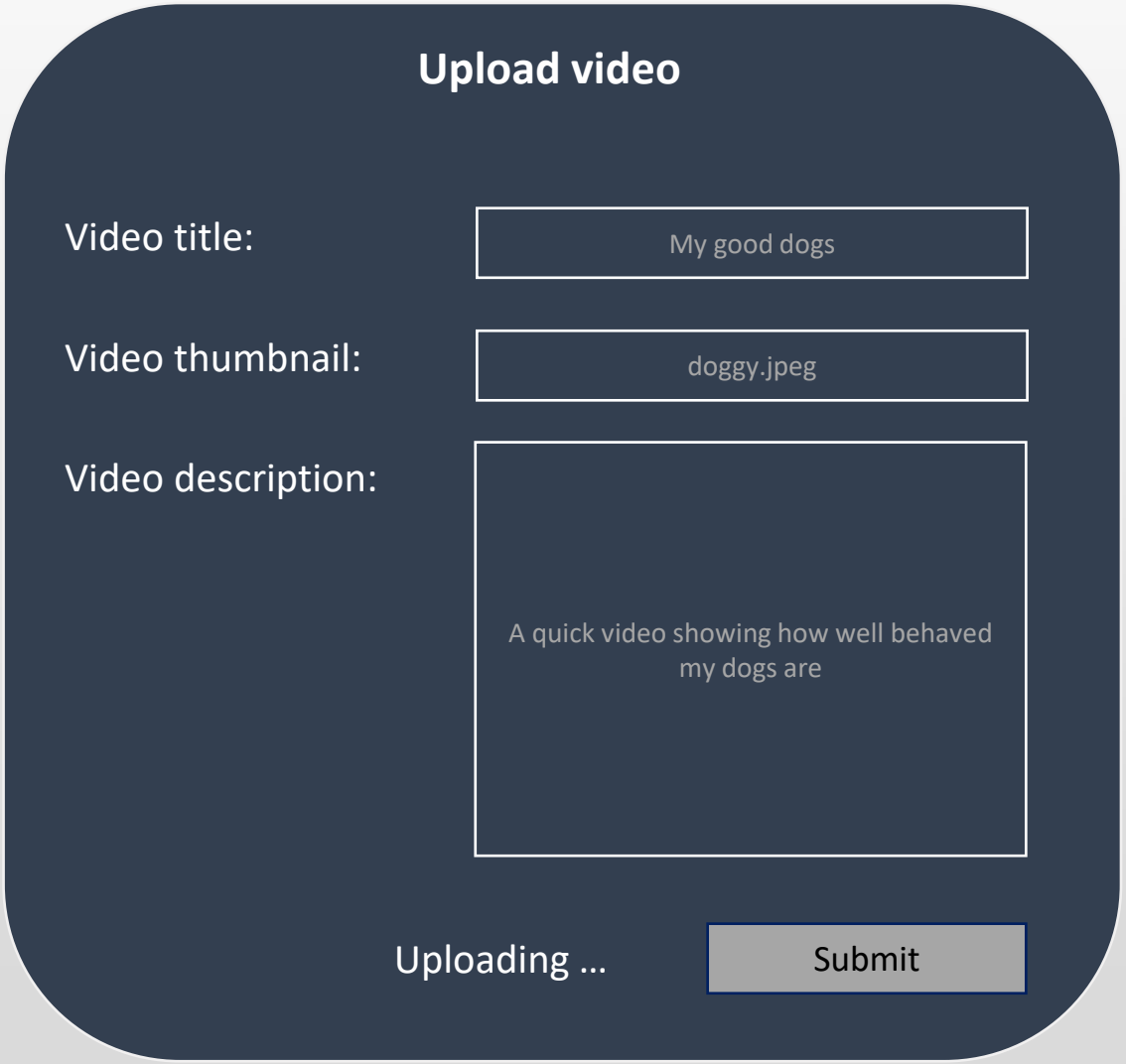
Video title: My good dogs

Video thumbnail: doggy.jpeg

Video description: A quick video showing how well behaved my dogs are

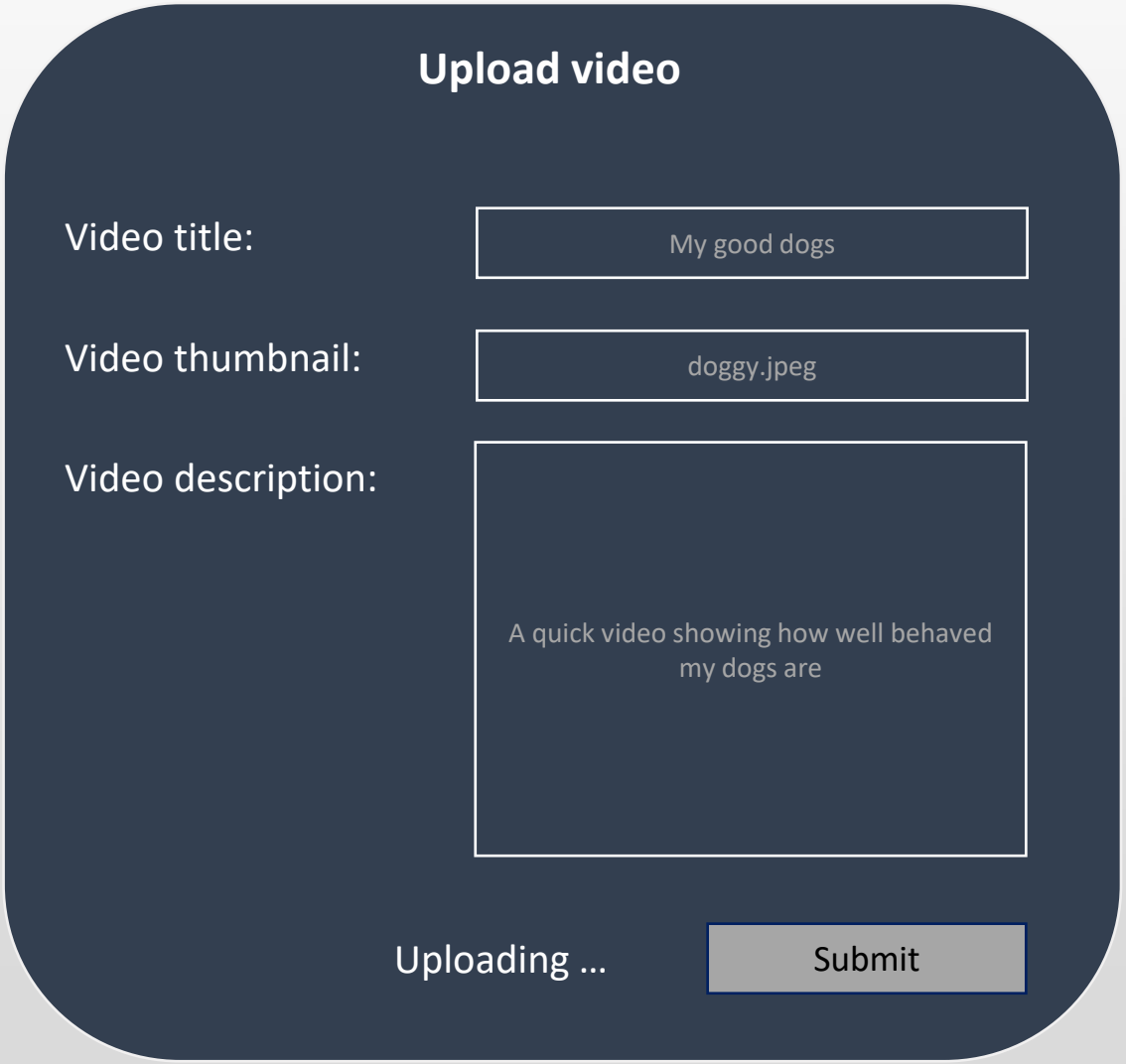
Submit

SYNCHRONOUS CODE



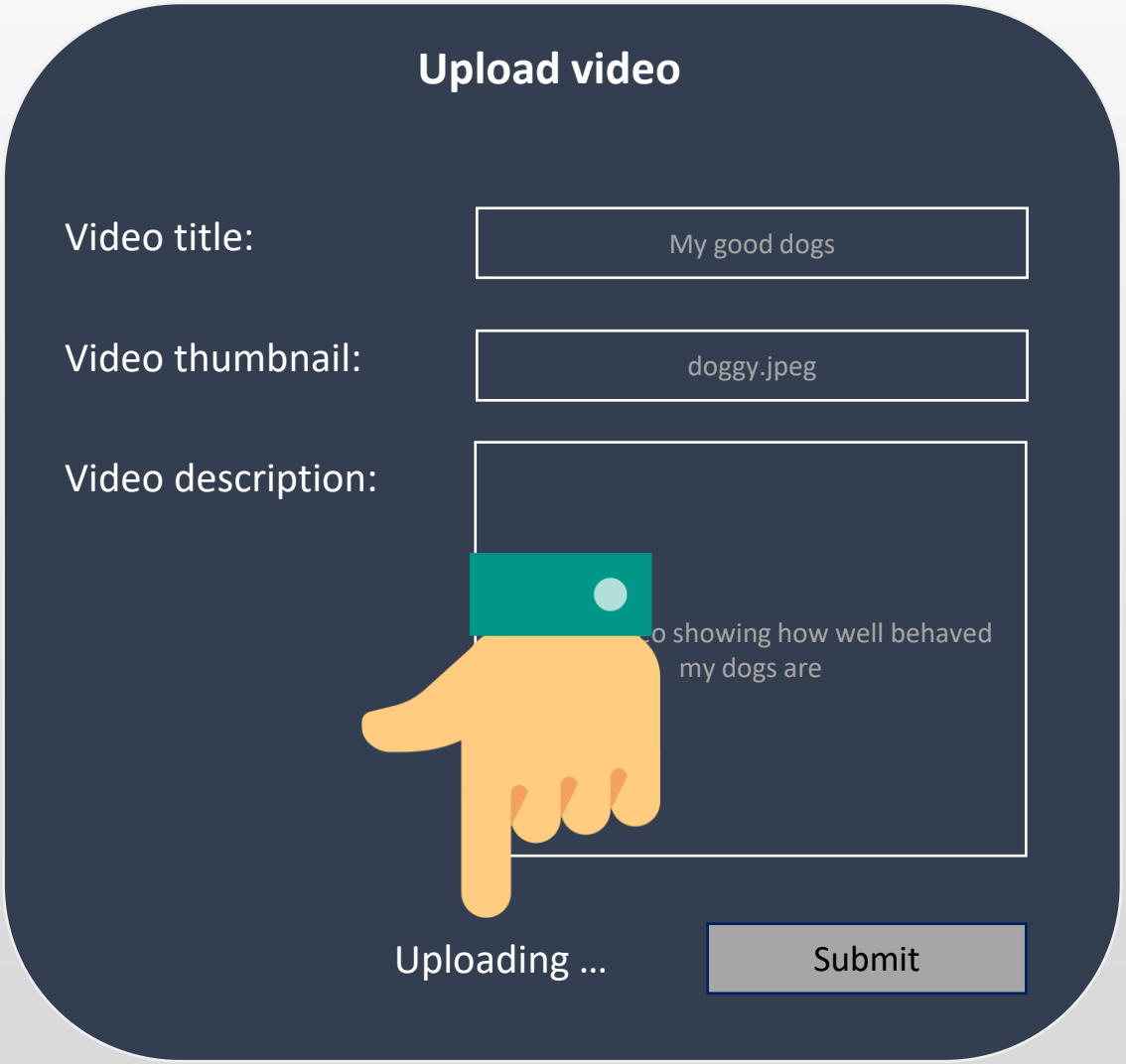
When the user hits “submit” everything is disabled

SYNCHRONOUS CODE



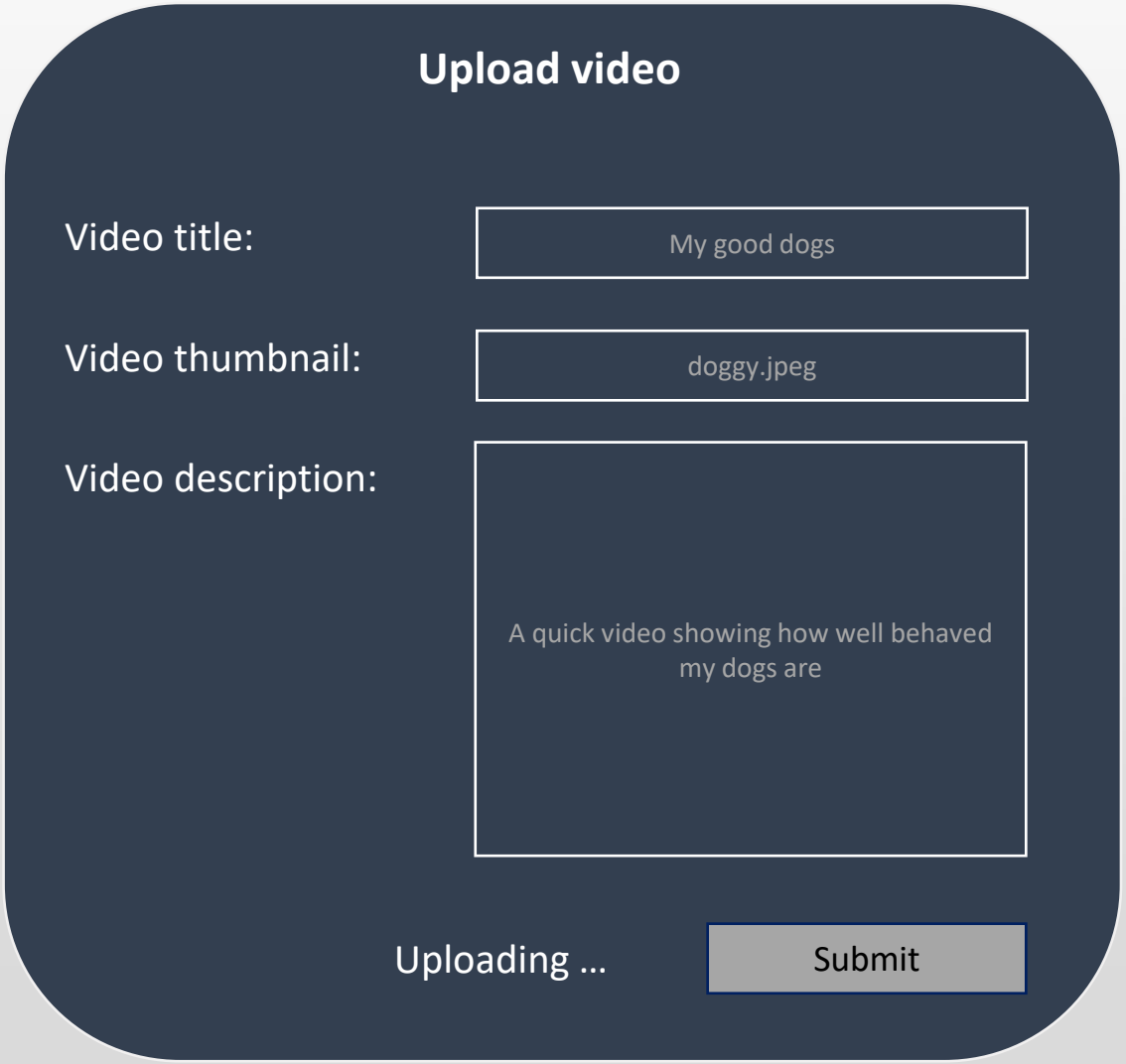

```
upload() {
      print('Uploading …')
      x = UploadVideo()
      print("successUrl: " + x)
}
```

SYNCHRONOUS CODE




```
upload() {
        print('Uploading …')
        x = UploadVideo()
        print("successUrl: " + x)
}
```

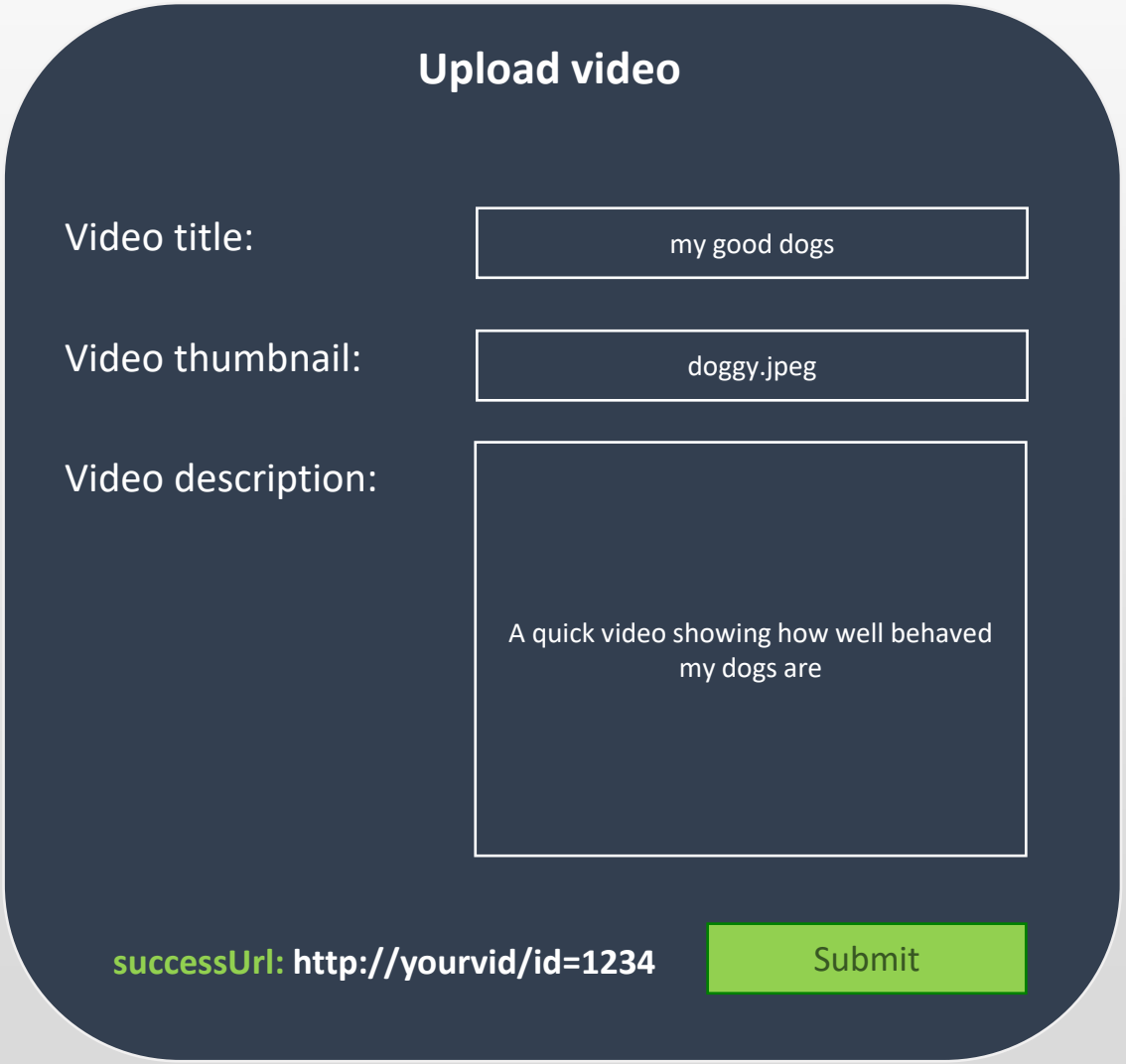
SYNCHRONOUS CODE




```
upload() {
      print('Uploading …')
      x = UploadVideo()
      print("su    ssUrl: " + x)
}
```

We have to wait

SYNCHRONOUS CODE




```
upload() {
      print('Uploading …')
      x = UploadVideo()
      print("successUrl: " + x)
}
```

SYNCHRONOUS CODE

GOOD

Easy to read code

Top to bottom

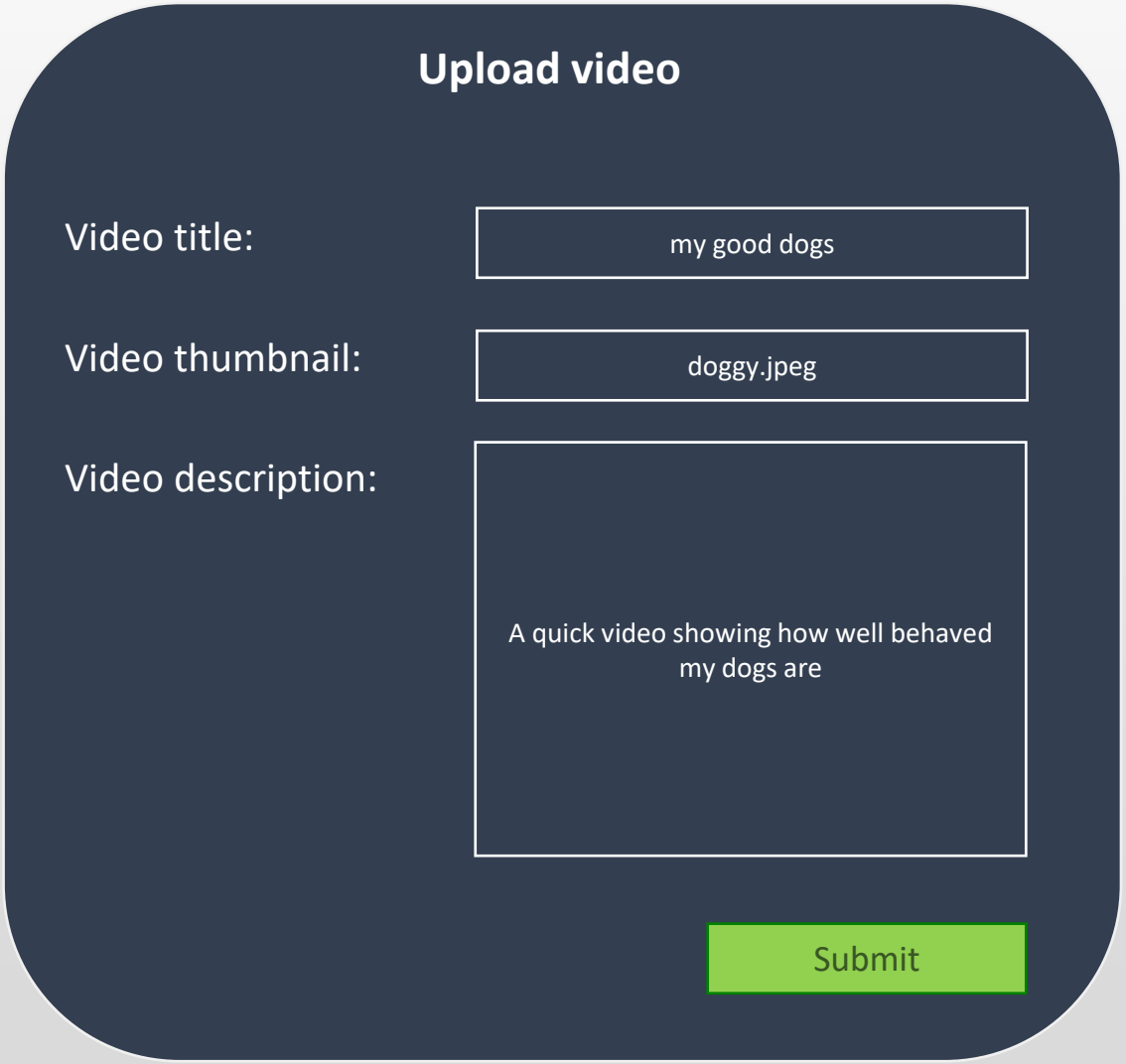
BAD

Have to wait

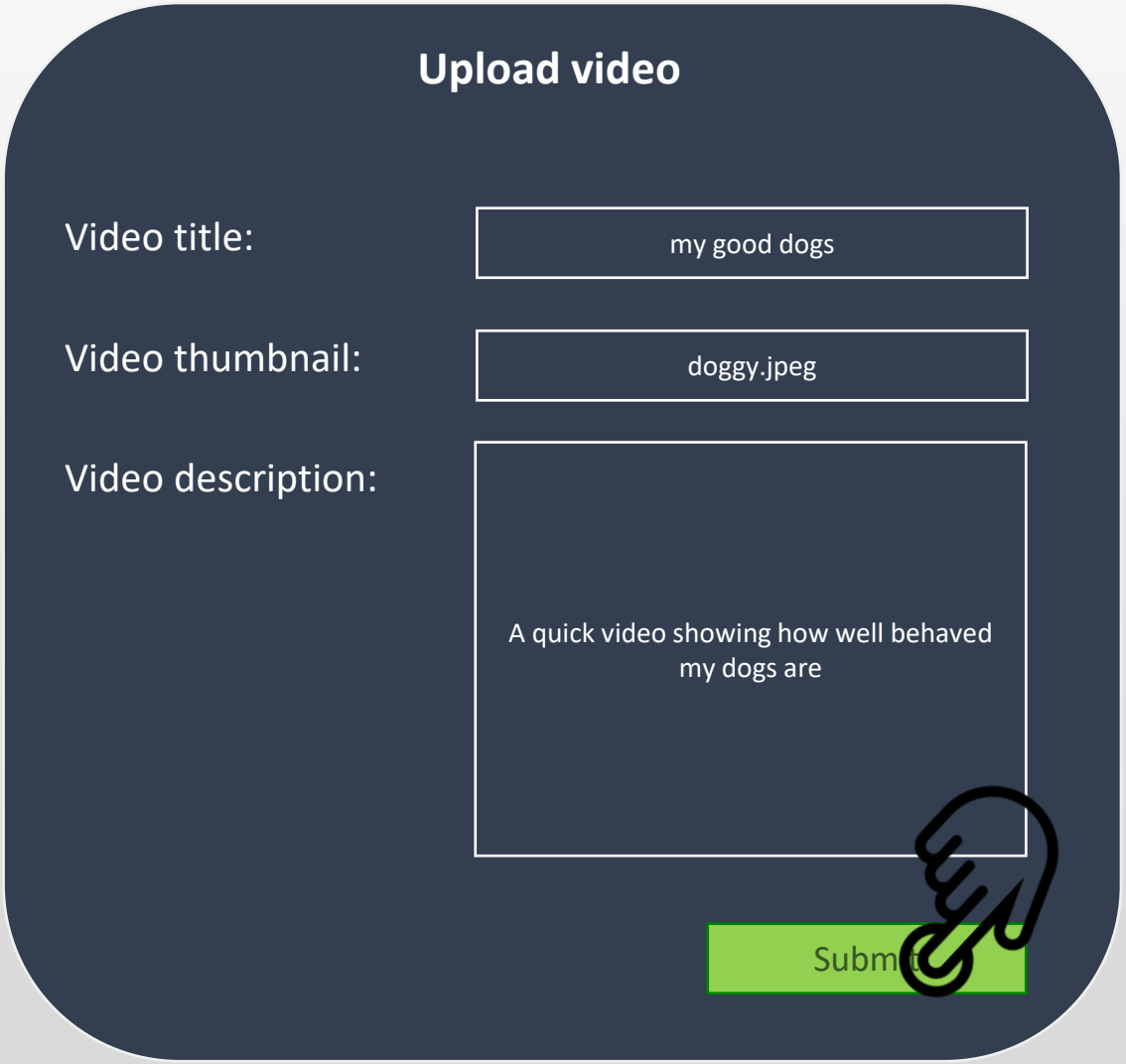
Not user friendly

ASYNCHRONOUS CODE

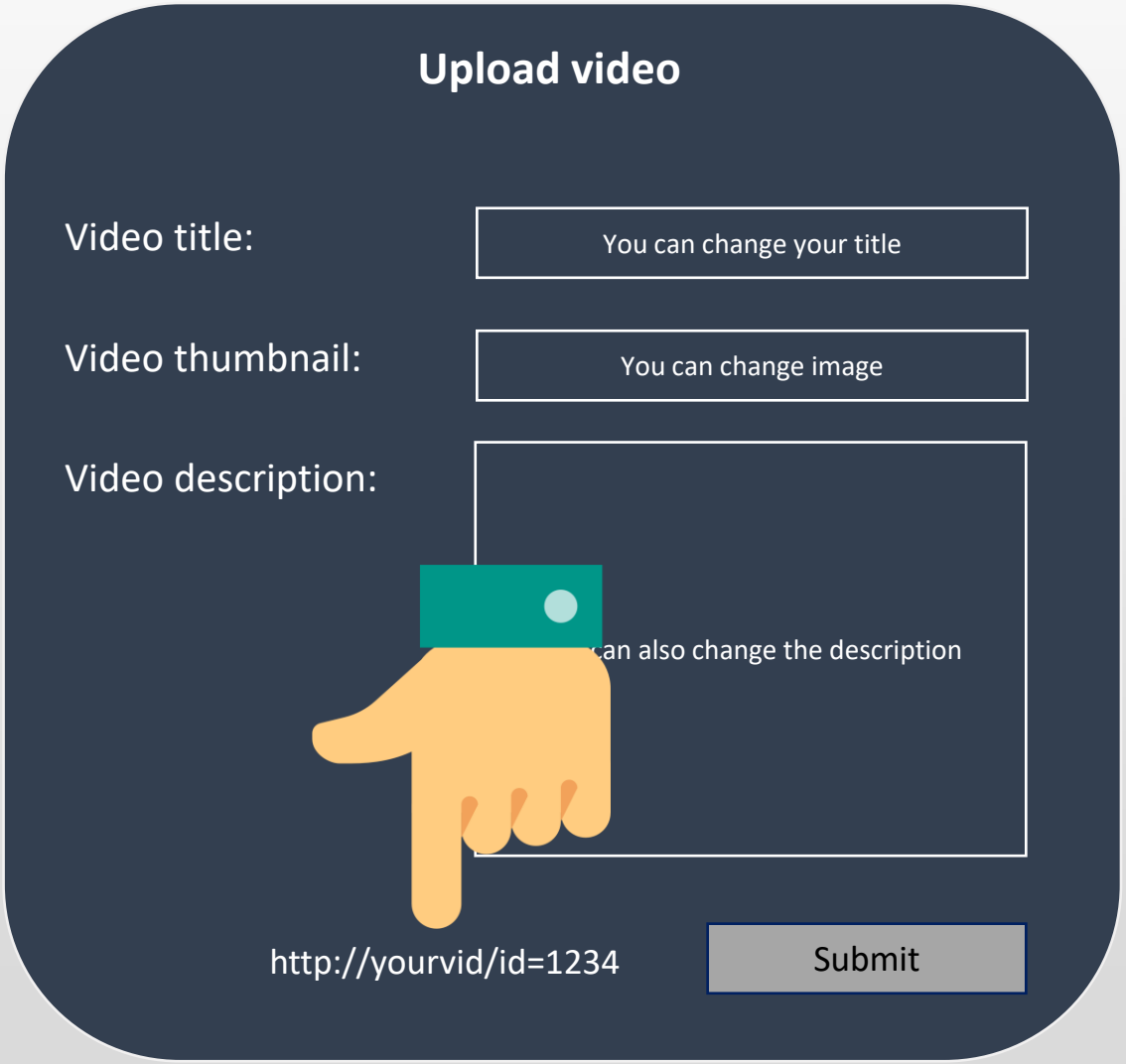
ASYNCHRONOUS CODE



ASYNCHRONOUS CODE



ASYNCHRONOUS CODE



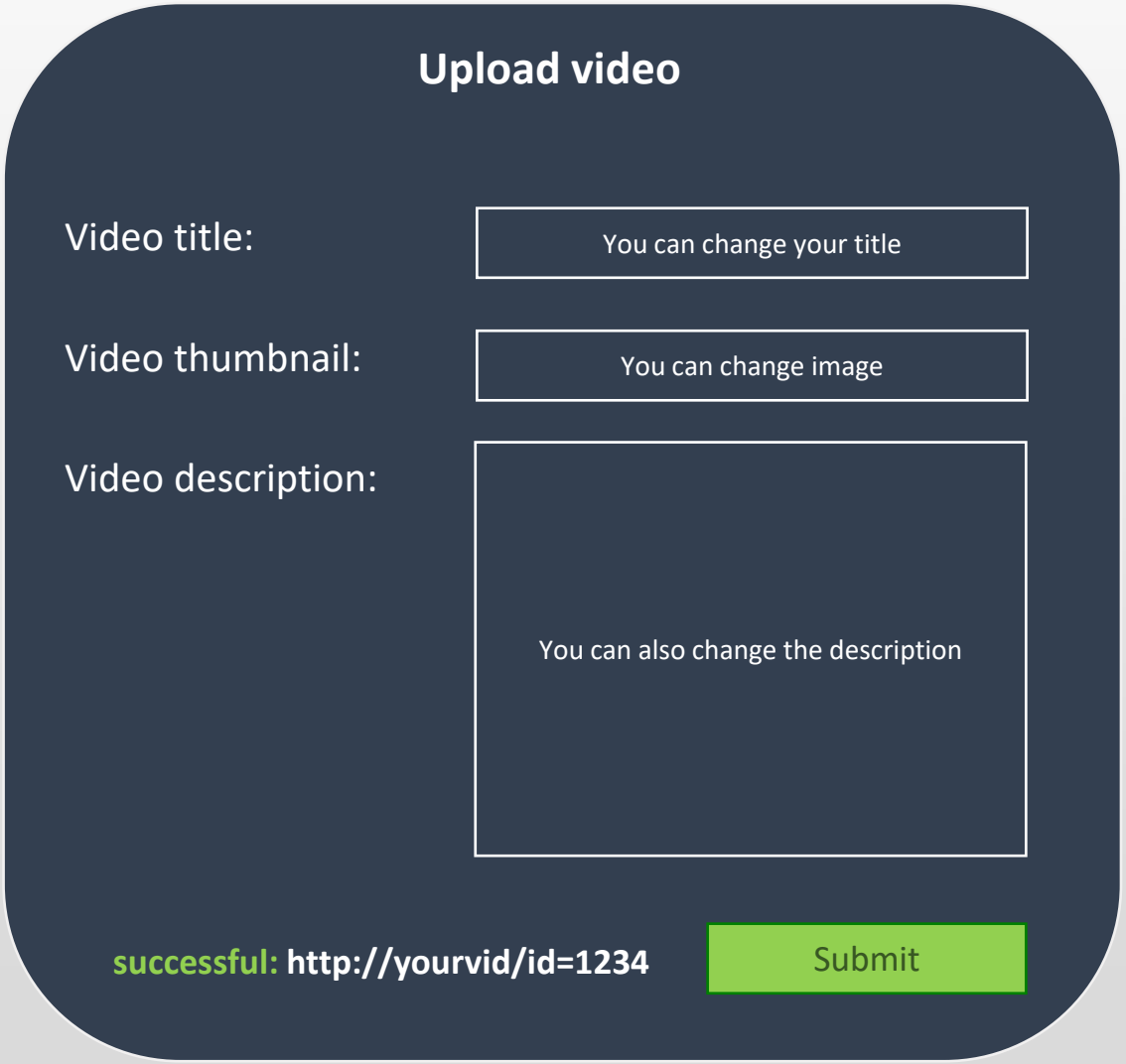
When you hit “submit” you immediately get back the URL

ASYNCHRONOUS CODE

When you hit “submit” you immediately get back the URL

The user is unblocked and can change titles, thumbnails and descriptions

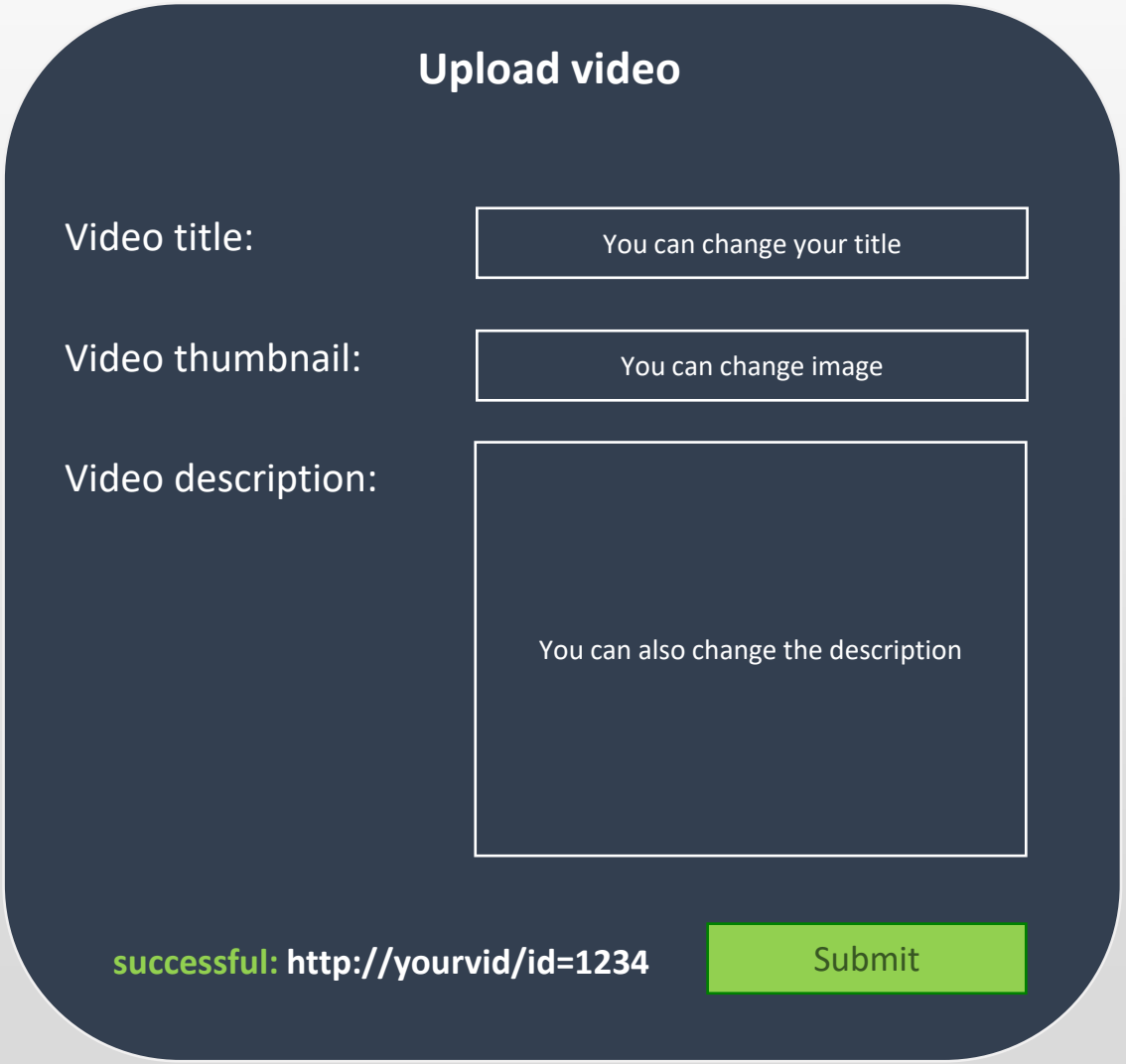
ASYNCHRONOUS CODE



When you hit “submit” you immediately get back the URL

The user is unblocked and can change titles, thumbnails and descriptions

ASYNCHRONOUS CODE




```
upload() {
        ...
        x = UploadVideo(uploadDone)
        print(x)
}

 uploadDone(x) {
        ...
        print("successful: " + x)
 }
```

ASYNCHRONOUS CODE

GOOD	BAD
Immediate results	Can be difficult to read code
No refresh or waiting	Not as simple as top-to-bottom
Improved user experience	