

# Middleware via examples

## 1. If you go to an amusement park



Doesn't have ticket



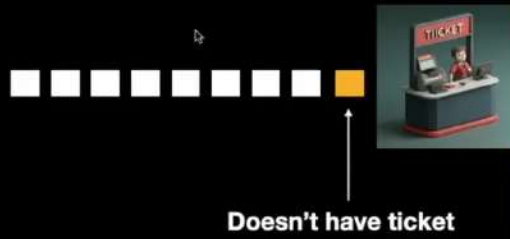
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Gets kicked out 



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Middleware

## Official definition of middleware

### Using middleware

Express is a routing and middleware web framework that has minimal functionality of its own: An Express application is essentially a series of middleware function calls.

**Middleware** functions are functions that have access to the `request object` (req), the `response object` (res), and the next middleware function in the application's request-response cycle. The next middleware function is commonly denoted by a variable named `next`.

Middleware functions can perform the following tasks:

- Execute any code.
- Make changes to the request and the response objects.
- End the request-response cycle.
- Call the next middleware function in the stack.

<https://expressjs.com/en/guide/using-middleware.html>

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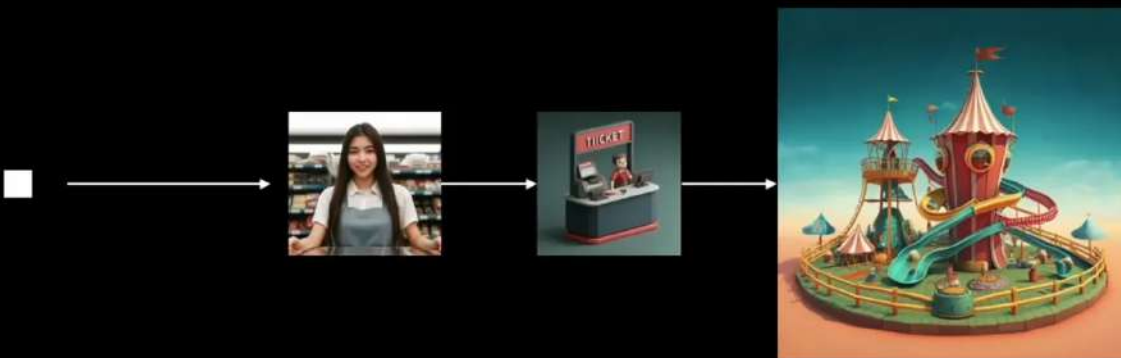
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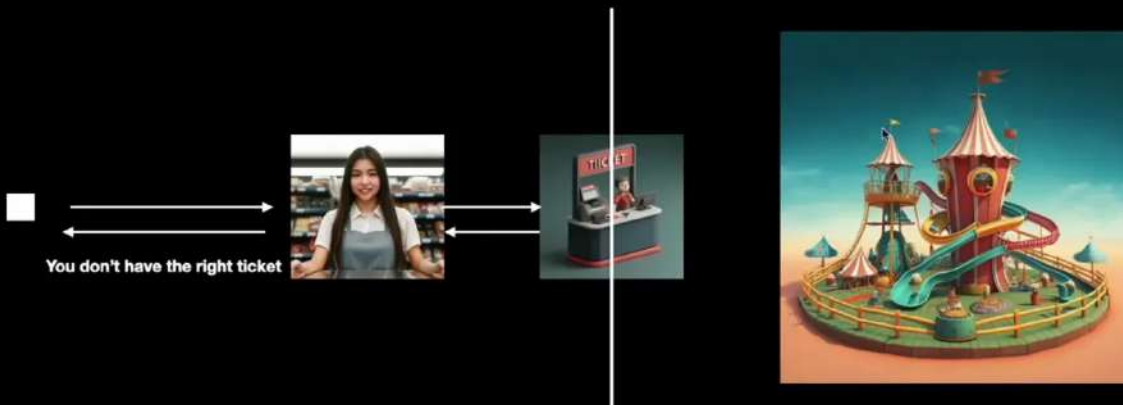
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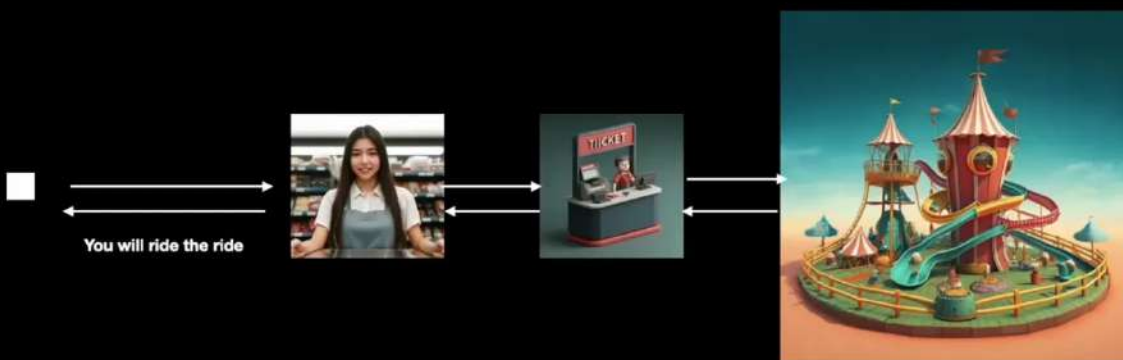
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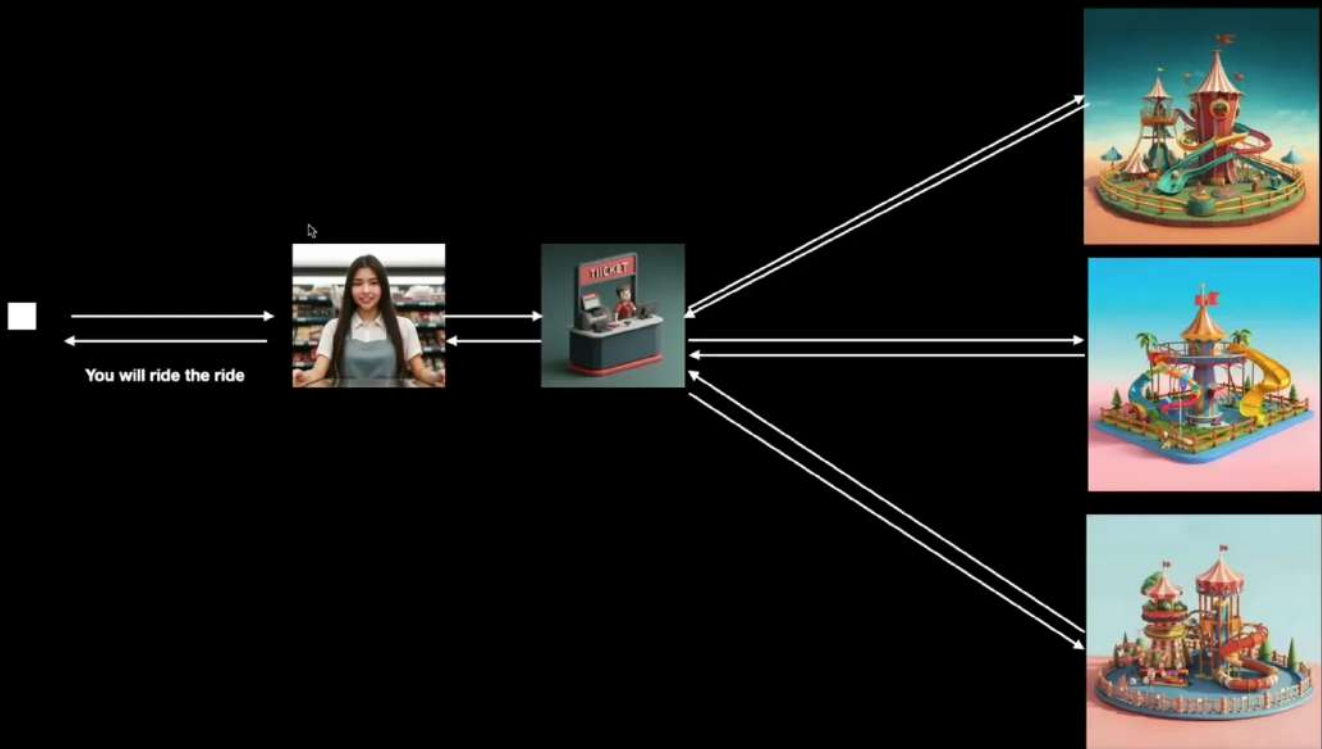
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## Middlewares can be re-used



## This is bad (not re-using middleware)



## Lets codify this example

Ticket checker



Ride 1



Ride 2



Ride 3



```
index.js  x  +
index.js > ...
1  const express = require("express");
2  const app = express();
3
4  function ticketChecker(req, res, next) {
5    const ticket = req.query.ticket;
6    if (ticket === "free") {
7      next();
8    } else {
9      res.status(403).send("Access denied");
10   }
11 }
12
13 app.use(ticketChecker);
14
15 app.get("/ride1", function () {
16   res.send("You rode the first ride!");
17 });
18
19 app.get("/ride2", function () {
20   res.send("You rode the first ride!");
21 });
22
23 app.get("/ride3", function () {
24   res.send("You rode the first ride!");
25 });
26
27 app.listen(3000);
```

<https://gist.github.com/hkirat/567e1ad5260a5fcac3fde209fabd34d4>