Contract Testing

Already an user? Login here

Sydney Testers Car Insurance

Make Audi

Year Year of Manufacture

Driver's Age Enter driver's age

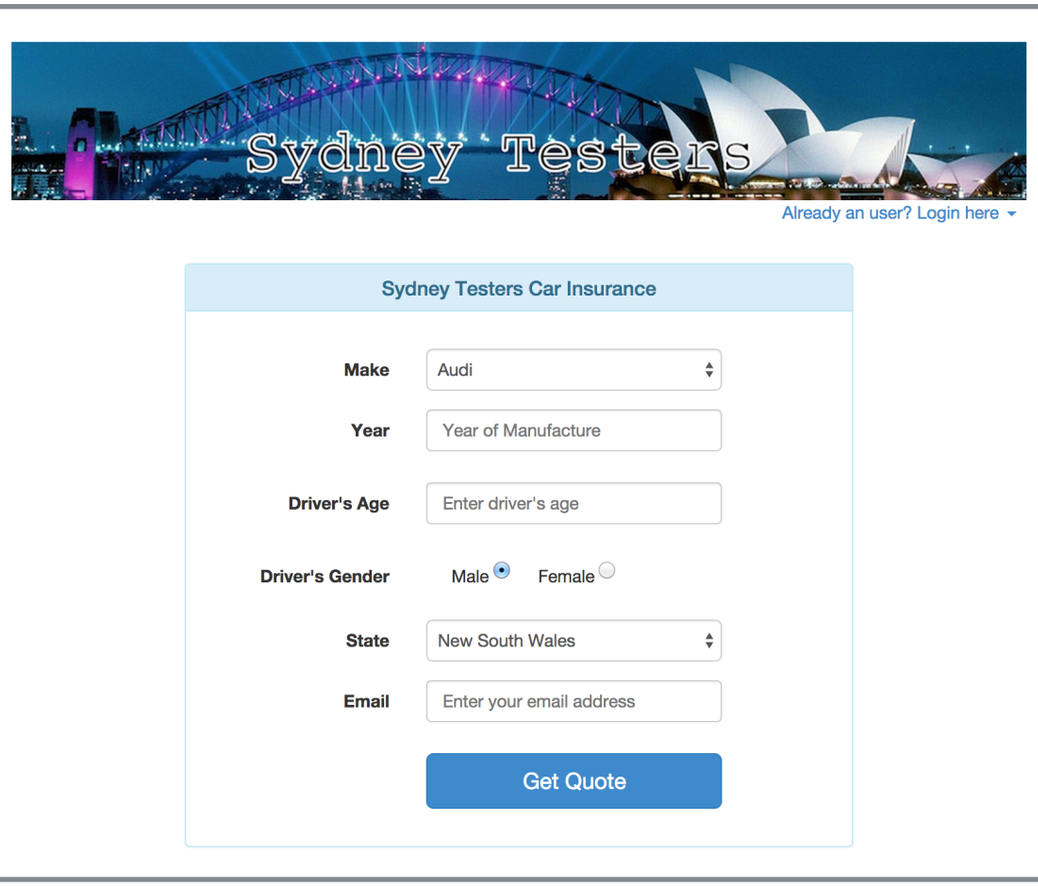
Driver's Gender Male Female

State New South Wales

Email Enter your email address

Get Quote

Car insurance website



get quote

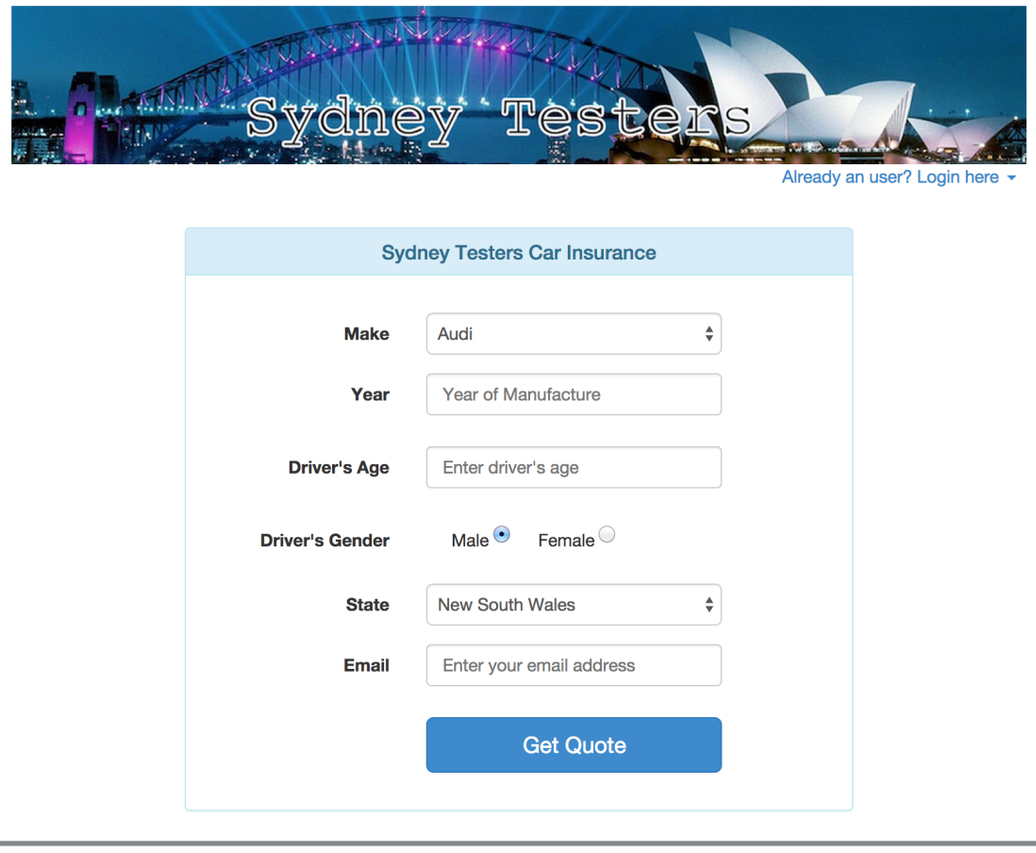
price

Car insurance pricing service

Vehicle make service

service

Car insurance website

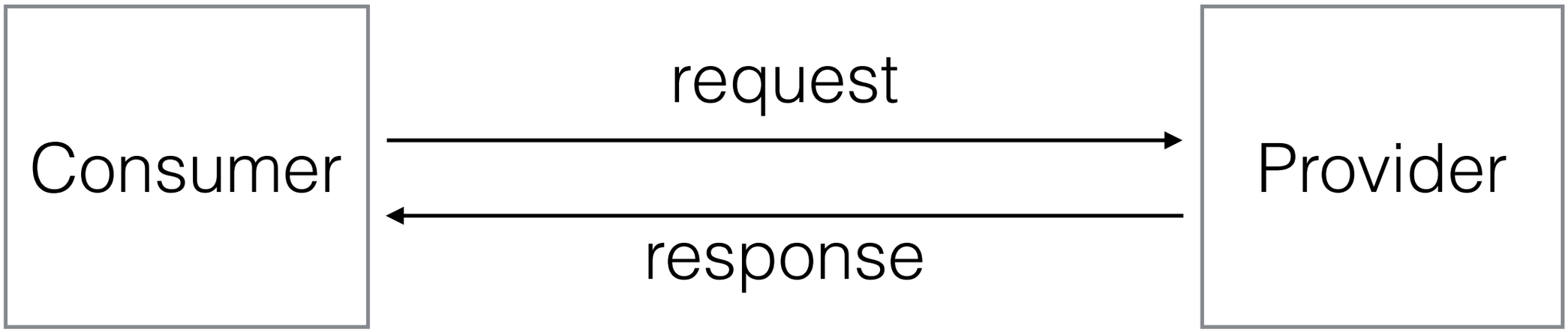


Car insurance pricing service

service

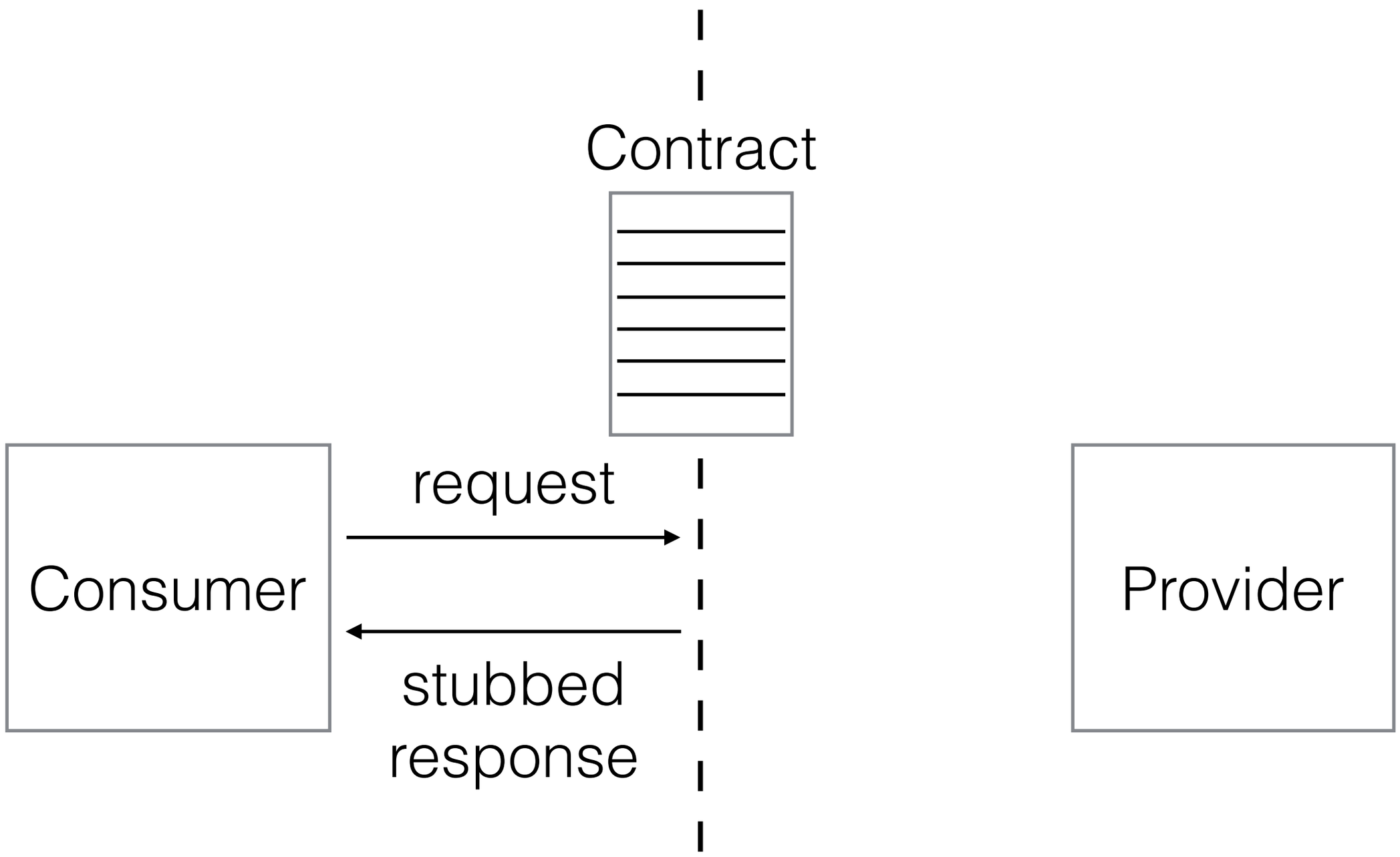
service

Integration tests?

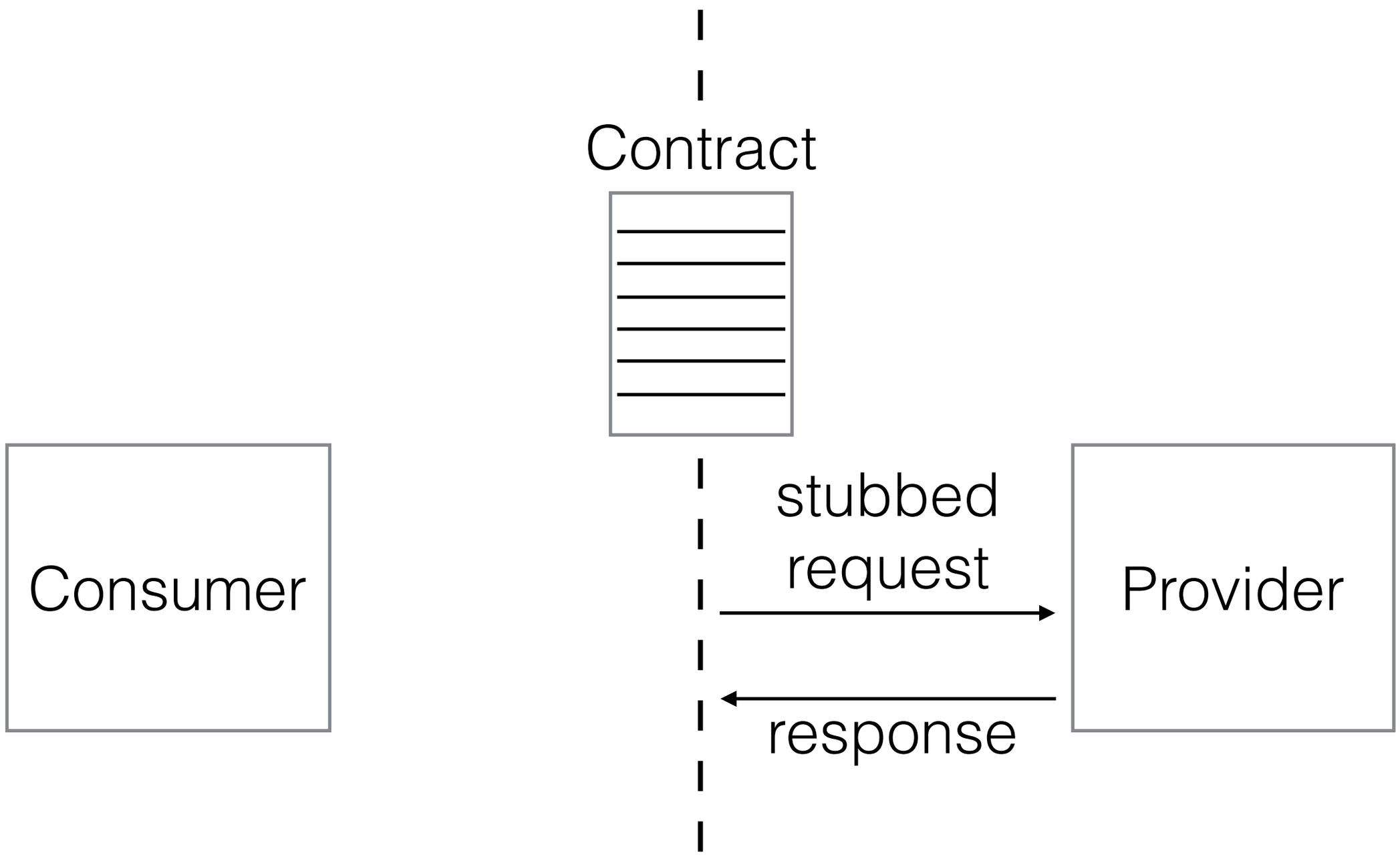


Heavy **Slow** **Brittle**

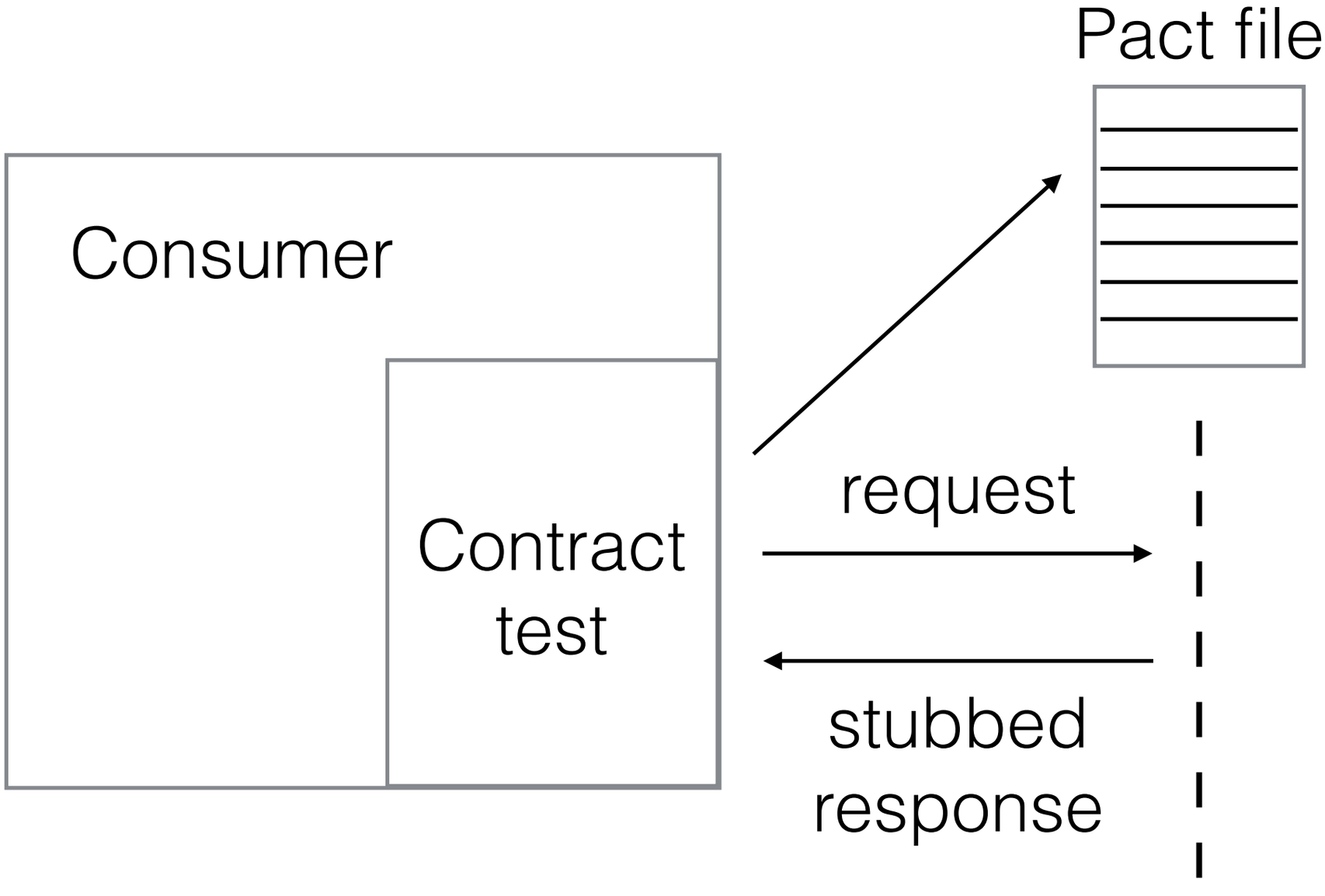
Contract tests



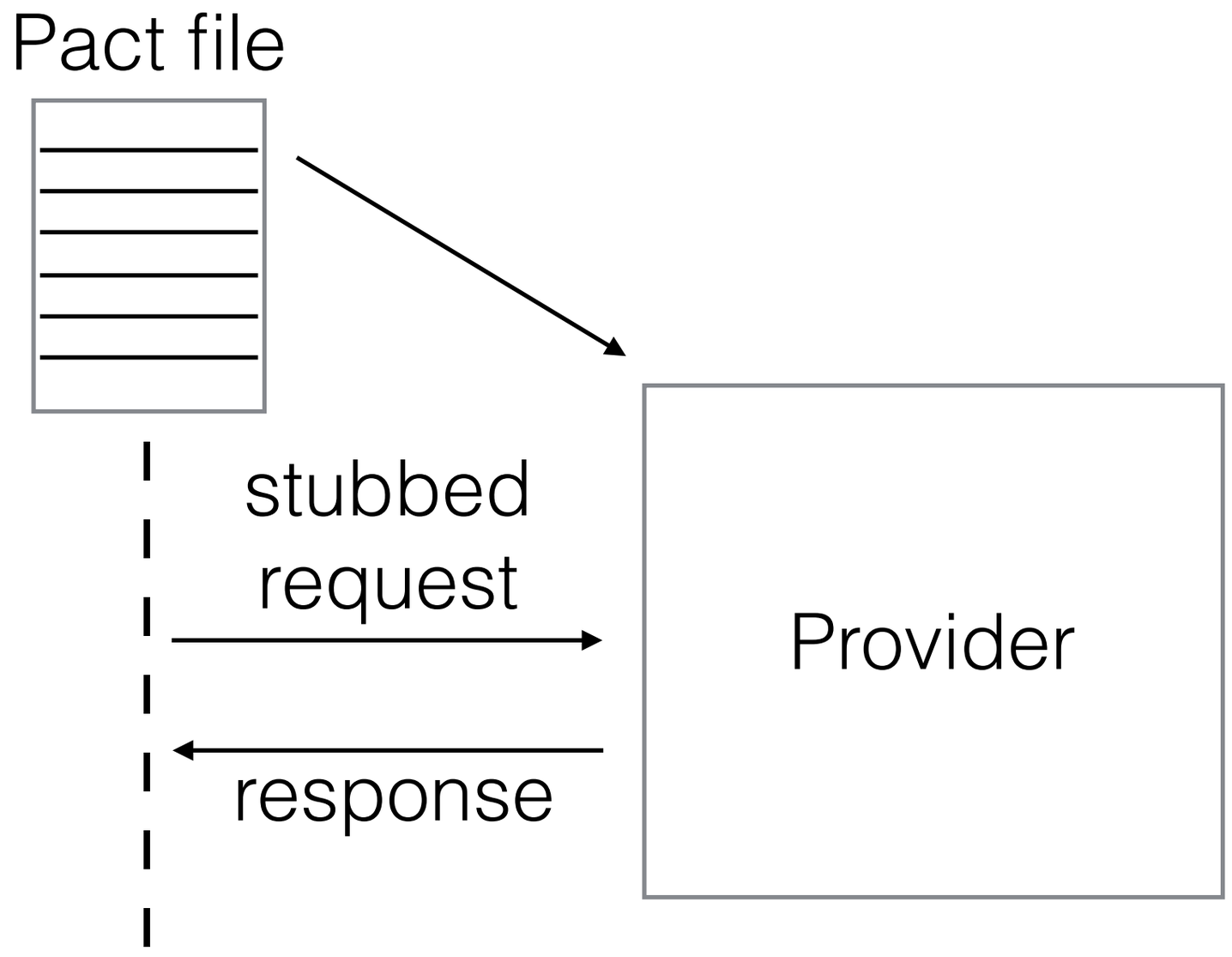
Contract tests



Pact - Consumer driven contract testing

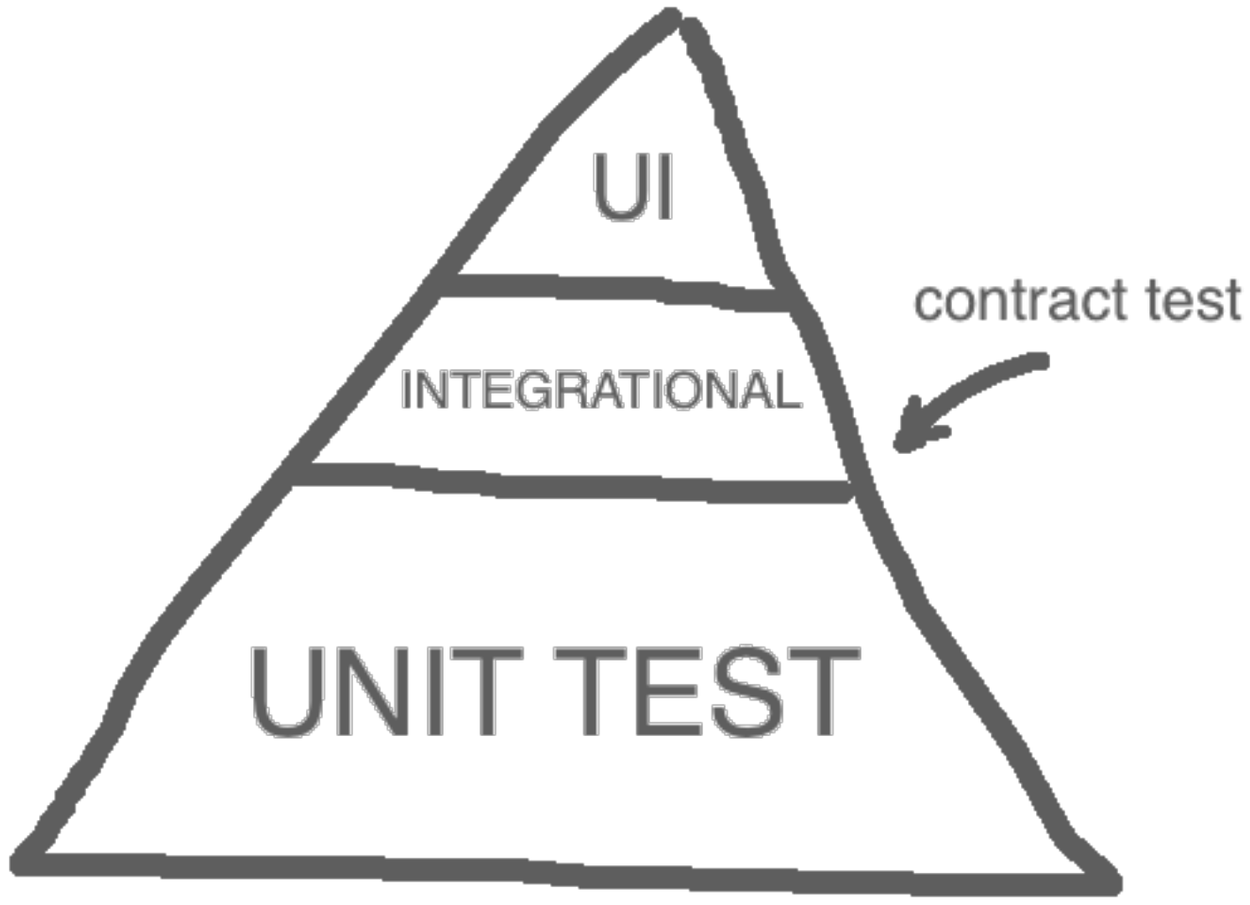


Pact - Consumer driven contract testing



Advantages over integration tests

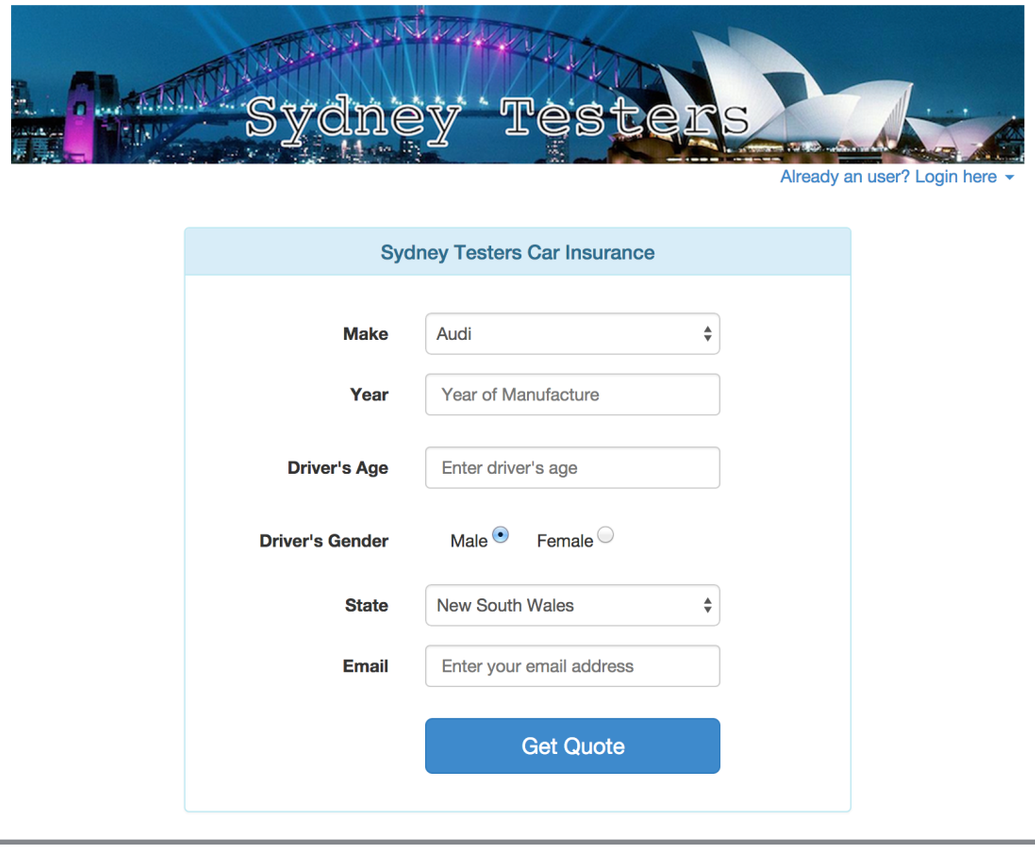
- lightweight
- fast
- less brittle



When do I use contract tests?

Microservices

Car insurance website



Vehicle make service

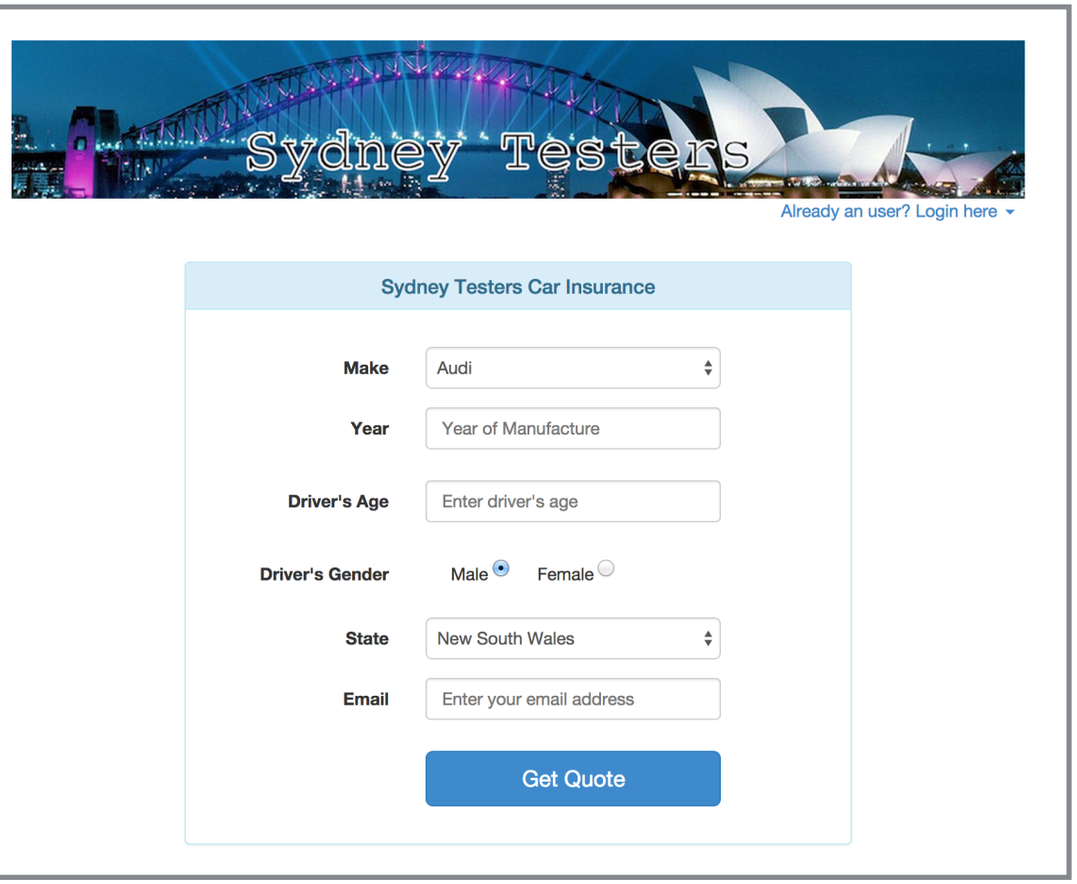
Car insurance pricing service

service

service

Our system

Car insurance website



Consumer

get quote

price

Car insurance pricing service

Provider

App Demo

start the car insurance website
from the 05_ContractTesting/Consumer directory
rackup -p 9292

start the car insurance pricing service
open a new tab in terminal
from the 05_ContractTesting/Provider directory
rackup -p 4567

Let’s request a quote from the pricing service

"GET /price?**age=30**&**gender=female**&**make=audi**&**state=nsw** HTTP/1.1" 200 15 0.0162

…and we see our quote is $**55.54**

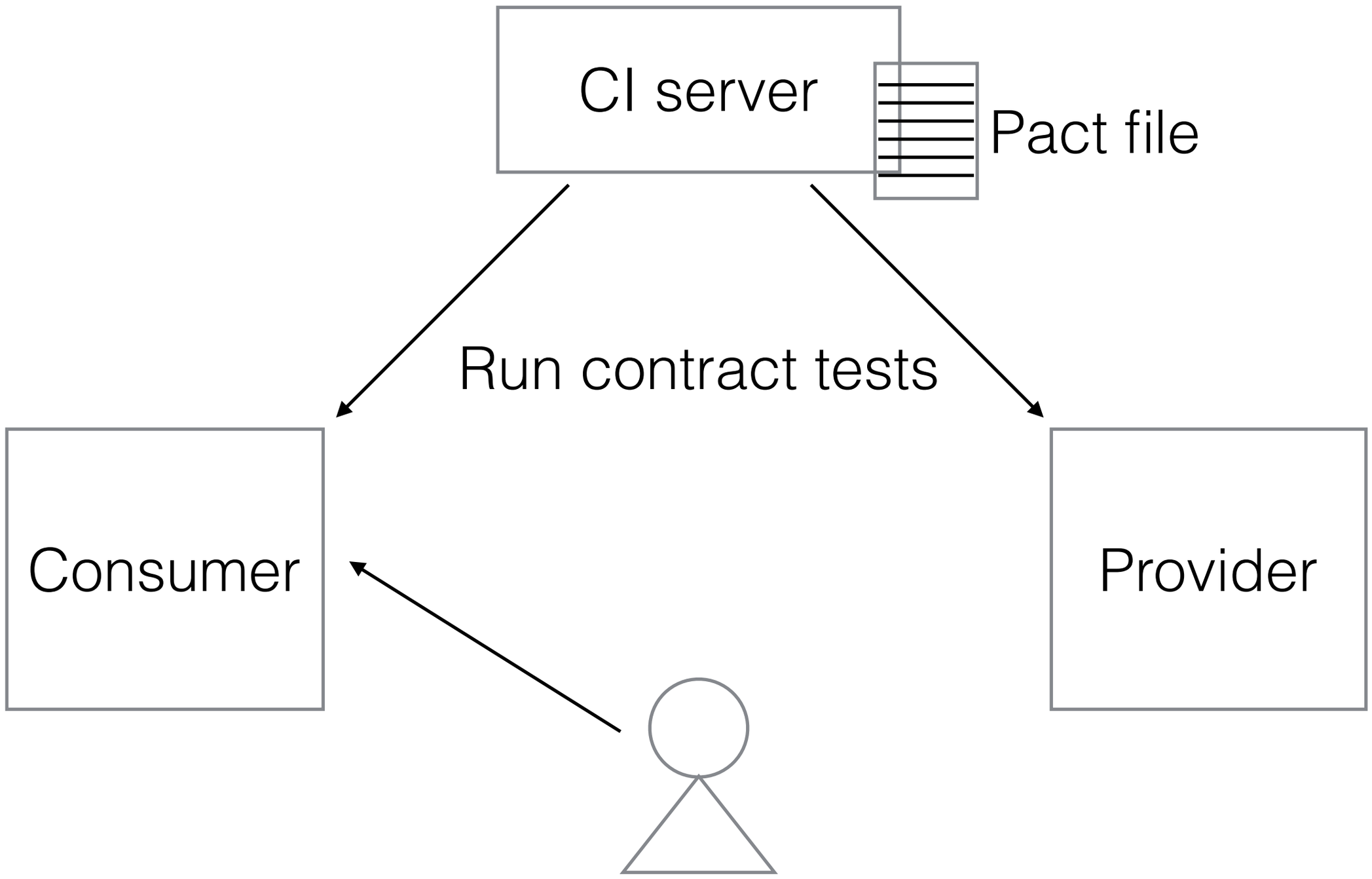
```
{
  "provider": {
      "name": "Pricing Service"
  },

  "consumer": {
      "name": "Website"
  },

  "interactions": [
  {
      "description": "a valid request for a price”,
      "request": {
          "method": "get",
          "path": "/price",
          "query": "age=30&gender=female&make=audi&state=nsw"
      },
      "response": {
          "status": 200,
          "headers": {
              "Content-Type": "application/json"
          },
          "body": {
              "price": 55.54
          }
      }
  }
  ],

  "metadata": {
      "pactSpecificationVersion": "1.0.0"
  }
}
```

Run the tests

run the car insurance website contract test
from the 05_ContractTesting/Consumer directory
rspec spec/carQuote_spec.rb
> 1 example, 0 failures

run the car insurance pricing service contract test
from the 05_ContractTesting/Provider directory
rake pact:verify
> 1 interaction, 0 failures

Continuous integration



Let’s break stuff

open Consumer/lib/carQuote.rb

in the ‘get_premium’ function, edit the request string to have an incorrect parameter name

"http://localhost:4567/price?
age=#@age&gender=#@gender**&make**=#@make&state=#@state"

"http://localhost:4567/price?
age=#@age&gender=#@gender**&model**=#@make&state=#@state"

run ‘rake’

```
Consumer specs FAIL
Provider specs PASS
```

change it back so both tests pass when you run rake

Let’s break more stuff

open Provider/pricing_service.rb

in the get '/price' function, edit the price value to include the AUD ‘$’

price: value.to_f

price: '$' + value

run ‘rake’

```
Consumer specs PASS
Provider specs FAIL
```

change it back so both tests pass when you run rake

Too easy? Try to add to the contract

we type the year into the car insurance quote form, but we don't really use it. How about you try to add it to your contract?

Hint:

- add a year parameter to the query string in the consumer spec file
- add that same year to the car quote before the test expectation
- add the year parameter to the car quote get request string
- have the pricing service retrieve the year parameter from the query string