

Question 1

```
Assignment1-KongMongVang -- zsh -- 222x62
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q1/welcome"
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %
```

Question 2

```
Assignment1-KongMongVang -- zsh -- 222x62
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q1/welcome"
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q2/greeting?name=Gary"
Hi Gary!%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q2/greeting?name=Ren%C3%A9e"
Hi Renée!%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %
```

Question 3

```
Assignment1-KongMongVang -- zsh -- 222x62
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q1/welcome"
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q2/greeting?name=Gary"
Hi Gary!%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q2/greeting?name=Ren%C3%A9e"
Hi Renée!%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q3/cube/4"
64%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q3/cube/-4"
-64%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q3/cube/10"
1000%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %
```

Question 4

```
Assignment1-KongMongVang -- zsh -- 222x62
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q1/welcome"
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q2/greeting?name=Gary"
Hi Gary!%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q2/greeting?name=Ren%C3%A9e"
Hi Renée!%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q3/cube/4"
64%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q3/cube/-4"
-64%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q3/cube/10"
1000%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "" "http://localhost:5014/api/q4/knockknock"
Who's there?
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "" "http://localhost:5014/api/q4/knockknock"
Who's there?
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "" "http://localhost:5014/api/q4/knockknock"
Who's there?%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %
```

Question 5

```
Assignment1-KongMongVang -- zsh - 222x62
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q1/welcome"
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q2/greeting?name=Gary"
Hi Gary!%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q2/greeting?name=Ren%C3%A9e"
Hi Renée!%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q3/cube/4"
64%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q3/cube/-4"
-64%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q3/cube/10"
1000%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "" "http://localhost:5014/api/q4/knockknock"
Who's there?
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "" "http://localhost:5014/api/q4/knockknock"
Who's there?
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "" "http://localhost:5014/api/q4/knockknock"
Who's there?%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q3/cube?num1=4"
64%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q3/cube/4"
64%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "5" "http://localhost:5014/api/q5/secret"
Shh.. the secret is 0%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "5" -H "Content-Type: application/json" "http://localhost
Shh.. the secret is 0%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "5" -H "Content-Type: application/json" "http://localhost
"
Shh.. the secret is 5%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %
```

Question 6

```
Who's there?%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q3/cube?num1=4"
64%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q3/cube/4"
64%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "5" "http://localhost:5014/api/q5/secret"
Shh.. the secret is 0%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "5" -H "Content-Type: application/json" "http://localhost:5014/api/q5/secret"
Shh.. the secret is 0%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "5" -H "Content-Type: application/json" "http://localhost:5014/api/q5/secret"
Shh.. the secret is 0%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "5" -H "Content-Type: application/json" "http://localhost:5014/api/q5/secret"
Shh.. the secret is 5%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "-200" "http://localhost:5014/api/q5/secret"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.16","title":"Unsupported Media Type","status":415,"traceId":"00-63d8022bc0c0-9ded4051df413fb2-00"}%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "-200" -H "Content-Type: application/json" "http://localhost:5014/api/q5/secret"
Shh.. the secret is -200%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1"
curl: (3) URL rejected: Malformed input to a URL function
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1"
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1.5"
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1.5"
5.845671475544961%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1"
2.598076211353316%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=20"
1039.2304845413264%
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %
```

Question 7

```
|64%  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "5" "http://localhost:5014/api/q5/secret"  
Shh.. the secret is 0%  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "5" -H "Content-Type: application/json" "http://localhost:  
"  
Shh.. the secret is 0%  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "5" -H "Content-Type: application/json" http://localhost  
Shh.. the secret is 0%  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "5" -H "Content-Type: application/json" "http://localhost:  
"  
Shh.. the secret is 5%  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "-200" "http://localhost:5014/api/q5/secret"  
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.16","title":"Unsupported Media Type","status":415,"traceId":"00-63d802  
2bc0c0-9ded4051df413fb2-00"}%  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "-200" -H "Content-Type: application/json" "http://localhost:  
ret"  
Shh.. the secret is -200%  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1"  
"  
curl: (3) URL rejected: Malformed input to a URL function  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1"  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1.5"  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1.5"  
5.845671475544961%  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1"  
2.598076211353316%  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=20"  
1039.2304845413264%  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q7/timemachine?days=-1"  
2025-05-29%  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q7/timemachine?days=1"  
2025-05-31%  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %
```

Question 8

```
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.16","title":"Unsupported Media Type","status":415,"traceId":"00-63d802a41041986d728560f3e2  
2bc0c0-9ded4051df413fb2-00"}  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "-200" -H "Content-Type: application/json" "http://localhost:5014/api/q5/sec  
ret"  
Shh.. the secret is -200  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1"  
"  
curl: (3) URL rejected: Malformed input to a URL function  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1"  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1.5"  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1.5"  
5.845671475544961  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=1"  
2.598076211353316  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q6/hexagon?side=20"  
1039.2304845413264  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q7/timemachine?days=-1"  
2025-05-29  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "GET" "http://localhost:5014/api/q7/timemachine?days=1"  
2025-05-31  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "Small=1&Large=1" -H "Content-Type: application/x-www-form-urlencoded" "http  
://localhost:5014/api/q8/squashfellows"  
1 Small @25.50 = $25.5; 1 large @40.50 = $40.5; subtotal = $66; tax = $8.58 HST; total = $74.58  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "Small=2&Large=1" -H "Content-Type: application/x-www-form-urlencoded" "http  
://localhost:5014/api/q8/squashfellows"  
2 Small @25.50 = $51; 1 large @40.50 = $40.5; subtotal = $91.5; tax = $11.895 HST; total = $103.395  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "Small=100&Large=100" -H "Content-Type: application/x-www-form-urlencoded" "  
http://localhost:5014/api/q8/squashfellows"  
100 Small @25.50 = $2550; 100 large @40.50 = $4050; subtotal = $6600; tax = $858 HST; total = $7458  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang % curl -X "POST" -d "Small=2&Large=1" -H "Content-Type: application/x-www-form-urlencoded" "http  
://localhost:5014/api/q8/squashfellows"  
2 Small @25.50 = $51.00; 1 large @40.50 = $40.50; subtotal = $91.50; tax = $11.89 HST; total = $103.39  
kongvang@Songs-MacBook-Pro Assignment1-KongMongVang %
```