

```
import java.util.HashMap;
import java.util.Map;
```

```
@GetMapping("/add/{A}/{B}")
public Map<String, Object> add(@PathVariable("A") int a, @PathVariable("B") int b)
{
    Map<String, Object>
    response = new HashMap<>();
    response.put("operation", "addition");
    response.put("A", a);
    response.put("B", b);
    response.put("result", a + b);
    return response;
}
```

```
@GetMapping("/div/{A}/{B}")
public Map<String, Object> div(@PathVariable("A") int a, @PathVariable("B") int b)
{
    Map<String, Object>
    response = new HashMap<>();
    response.put("operation", "division");
    response.put("A", a);
    response.put("B", b);
    if (b == 0)
    { response.put("error", "Division by zero is not allowed!"); }
    else
    { response.put("result", a / b); }
    return response;
}
```

/localhost:9095/div/5/5

[localhost:9095/squ/10/5](http://localhost:9095/squ/10/5)

<http://localhost:9095/modu/10/5>

<http://localhost:9095/prod/5/5>

# Pretty-print

```
{
  "result": 0,
  "A": 5,
  "B": 5,
  "operation": "subtraction"
}
```

```
package klu.controller;
```

```
import org.springframework.web.bind.annotation.CrossOrigin;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;
import java.util.HashMap;
import java.util.Map;
```

```
@RestController
```

```
@RequestMapping("/")
```

```
@CrossOrigin("*")
```

```
public class ArithmeticController {
```

```
    @GetMapping("/add/{A}/{B}")
```

```
    public Map<String, Object> add(@PathVariable("A") int a, @PathVariable("B") int b) {
```

```
        Map<String, Object> response = new HashMap<>();
```

```
        response.put("operation", "addition");
```

```
        response.put("A", a);
```

```
        response.put("B", b);
```

```
        response.put("result", a + b);
```

```
        return response;
```

```
    }
```

```

@GetMapping("/sub/{A}/{B}")
public Map<String, Object> sub(@PathVariable("A") int a, @PathVariable("B") int b) {
    Map<String, Object> response = new HashMap<>();
    response.put("operation", "subtraction");
    response.put("A", a);
    response.put("B", b);
    response.put("result", a - b);
    return response;
}

```

```

@GetMapping("/prod/{A}/{B}")
public Map<String, Object> prod(@PathVariable("A") int a, @PathVariable("B") int b) {
    Map<String, Object> response = new HashMap<>();
    response.put("operation", "product");
    response.put("A", a);
    response.put("B", b);
    response.put("result", a * b);
    return response;
}

```

```

@GetMapping("/div/{A}/{B}")
public Map<String, Object> div(@PathVariable("A") int a, @PathVariable("B") int b) {
    Map<String, Object> response = new HashMap<>();
    response.put("operation", "quotient");
    response.put("A", a);
    response.put("B", b);
    if (b == 0) {
        response.put("error", "Division by zero is not allowed!");
    } else {
        response.put("result", a / b);
    }
    return response;
}

```

```

@GetMapping("/modu/{A}/{B}")
public Map<String, Object> modu(@PathVariable("A") int a, @PathVariable("B") int b) {
    Map<String, Object> response = new HashMap<>();
    response.put("operation", "remainder");
    response.put("A", a);
    response.put("B", b);
    response.put("result", a % b);
    return response;
}

```

```

@GetMapping("/squ/{A}/{B}")
public Map<String, Object> squ(@PathVariable("A") int a, @PathVariable("B") int b) {
    Map<String, Object> response = new HashMap<>();

```

```
response.put("operation", "power");
response.put("A", a);
response.put("B", b);
response.put("result", Math.pow(a, b)); // returns double
return response;
}
}
```