Hello World

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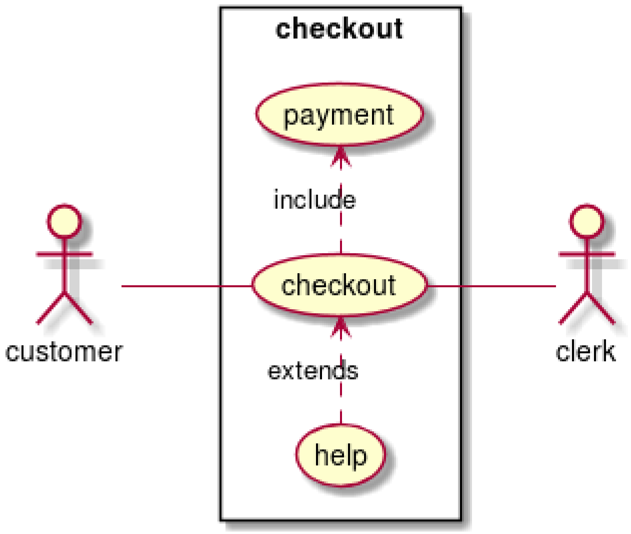
1. 仕様

2. 設計

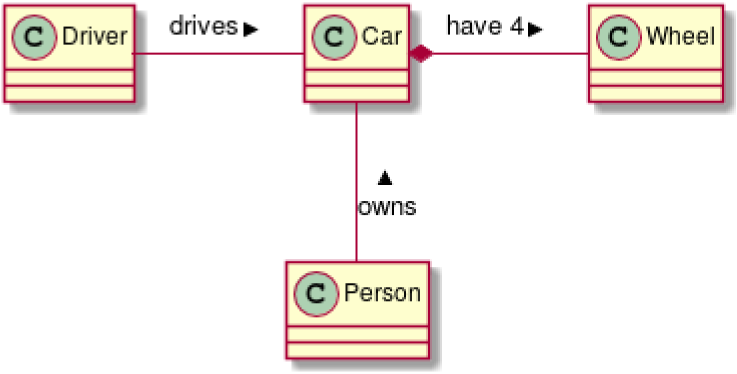
2.1. TODOリスト

- ☐ TODO
- ☑ ~~TODO DONE~~

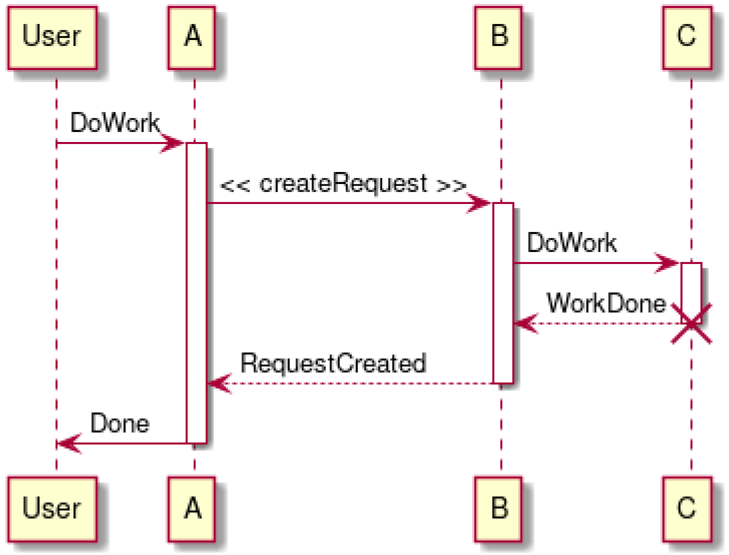
2.2. ユースケース図



2.3. クラス図



2.4. シーケンス図



3. 実装

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Threading.Tasks;
using System.Net.Http;
using System.Net.Http.Headers;
using Newtonsoft.Json;

using Amazon.Lambda.Core;
using Amazon.Lambda.APIGatewayEvents;

// Assembly attribute to enable the Lambda function's JSON input to be converted into
a .NET class.
[assembly: LambdaSerializer(typeof(Amazon.Lambda.Serialization.Json.JsonSerializer))]

namespace HelloWorld
{

    public class Function
    {

        private static readonly HttpClient client = new HttpClient();

        private static async Task<string> GetCallingIP()
        {
            client.DefaultRequestHeaders.Accept.Clear();
            client.DefaultRequestHeaders.Add("User-Agent", "AWS Lambda .Net Client");

            var stringTask =
client.GetStringAsync("http://checkip.amazonaws.com/").ConfigureAwait(continueOnCaptur
edContext:false);
```

```
            var msg = await stringTask;
            return msg.Replace("\n","");
        }

        public APIGatewayProxyResponse FunctionHandler(APIGatewayProxyRequest
apigProxyEvent, ILambdaContext context)
        {

            string location = GetCallingIP().Result;
            Dictionary<string, string> body = new Dictionary<string, string>
            {
                { "message", "hello world" },
                { "location", location },
            };

            return new APIGatewayProxyResponse
            {
                Body = JsonConvert.SerializeObject(body),
                StatusCode = 200,
                Headers = new Dictionary<string, string> { { "Content-Type",
"application/json" } }
            };
        }
    }
}
```

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Threading.Tasks;
using System.Net.Http;
using System.Net.Http.Headers;

using Newtonsoft.Json;
using Xunit;
using Amazon.Lambda.Core;
using Amazon.Lambda.TestUtilities;
using Amazon.Lambda.APIGatewayEvents;

namespace HelloWorld.Tests
{
  public class FunctionTest
  {
    private static readonly HttpClient client = new HttpClient();

    private static async Task<string> GetCallingIP()
    {
            client.DefaultRequestHeaders.Accept.Clear();
            client.DefaultRequestHeaders.Add("User-Agent", "AWS Lambda .Net Client");
            var stringTask =
client.GetStringAsync("http://checkip.amazonaws.com/").ConfigureAwait(continueOnCaptur
edContext:false);

            var msg = await stringTask;
            return msg.Replace("\n","");
    }

    [Fact]
    public void TestHelloWorldFunctionHandler()
    {
            TestLambdaContext context;
            APIGatewayProxyRequest request;
            APIGatewayProxyResponse response;

            request = new APIGatewayProxyRequest();
            context = new TestLambdaContext();
            string location = GetCallingIP().Result;
            Dictionary<string, string> body = new Dictionary<string, string>
            {
                { "message", "hello world" },
                { "location", location },
            };

            var ExpectedResponse = new APIGatewayProxyResponse
            {
                Body = JsonConvert.SerializeObject(body),
                StatusCode = 200,
                Headers = new Dictionary<string, string> { { "Content-Type",
"application/json" } }
            };

            var function = new Function();
            response = function.FunctionHandler(request, context);

            Console.WriteLine("Lambda Response: \n" + response.Body);
            Console.WriteLine("Expected Response: \n" + ExpectedResponse.Body);

            Assert.Equal(ExpectedResponse.Body, response.Body);
            Assert.Equal(ExpectedResponse.Headers, response.Headers);
            Assert.Equal(ExpectedResponse.StatusCode, response.StatusCode);
    }
  }
}
```

4. 参照

- PlantUML[http://plantuml.com]