1. Function App : sc20at

1.1 Function Name: Factorialhttp

1.1.1 Run.csx

```
#r "Newtonsoft.Json"

using System.Net;
using Microsoft.AspNetCore.Mvc;
using Microsoft.Extensions.Primitives;
using Newtonsoft.Json;

public static async Task<IActionResult> Run(HttpRequest req, ILogger log)
{
    log.LogInformation("C# HTTP trigger function processed a request.");

    int i=1;
    int fact=1;
    while(i<=10)
    {
        fact=fact*i;
        i=i+1;}

    string name = req.Query["name"];
    string requestBody = await new StreamReader(req.Body).ReadToEndAsync();
    dynamic data = JsonConvert.DeserializeObject(requestBody);
    name = name ?? data?.name;

    string responseMessage = string.IsNullOrEmpty(name)
        ? "This HTTP triggered function executed successfully. Pass a name in the query
string or in the request body for a personalized response."
                : $"Hello, {name}. The factorial of 10 is :{fact}";

            return new OkObjectResult(responseMessage);
}
```

1.1.2 function.json

```
{"bindings": [
    {"authLevel": "anonymous",
      "name": "req",
      "type": "httpTrigger",
      "direction": "in",
```

```
    "methods": [
      "get",
      "post"
    ]},{
    "name": "$return",
    "type": "http",
    "direction": "out"
  }]}
```

1.2 Function Name: Countofpalindromes

1.2.1 Run.csx

```
#r "Newtonsoft.Json"
using System.Net;
using Microsoft.AspNetCore.Mvc;
using Microsoft.Extensions.Primitives;
using Newtonsoft.Json;

public static async Task<IActionResult> Run(HttpRequest req, ILogger log)
{
    log.LogInformation("C# HTTP trigger function processed a request.");
    int n=1;
        int temp,rem,rev=0;
        int count=0;
        while(n<=2000)
        {
            temp=n;
            rev=0;
            while(n>0)
            {
                rem=n%10;
                rev=rev*10+rem;
                n=n/10;
            }
            if(temp==rev)
            {
                count=count+1;
            }
            else
            {
                count=count+0;
            }
            n=temp;
            n=n+1;
        }


    string name = req.Query["name"];
```

```
    string requestBody = await new StreamReader(req.Body).ReadToEndAsync();
    dynamic data = JsonConvert.DeserializeObject(requestBody);
    name = name ?? data?.name;

    string responseMessage = string.IsNullOrEmpty(name)
        ? "This HTTP triggered function executed successfully. Pass a name in the query string or in
the request body for a personalized response."
            : $"Hello, {name}. This HTTP triggered function executed successfully and there are
{count} palindromes between 1 and 2000.";

        return new OkObjectResult(responseMessage);
}
```

1.2.2 function.json

```
{
  "bindings": [
    {
      "authLevel": "anonymous",
      "name": "req",
      "type": "httpTrigger",
      "direction": "in",
      "methods": [
        "get",
        "post"
      ]
    },
    {
      "name": "$return",
      "type": "http",
      "direction": "out"
    }
  ]
}
```

2. Function App : sc20atsecond

2.1 Function name : Factorialhttpsecond

2.1.1 index.js

```
module.exports = async function (context, req) {
    context.log('JavaScript HTTP trigger function processed a request.');
    let fact = 1;
    for (i = 1; i <= 10; i++) {
        fact *= i;}

    const name = (req.query.name || (req.body && req.body.name));
    const responseMessage = name
        ? "Hello, " + name + ". The factorial of 10 is:"+fact+"."
        : "This HTTP triggered function executed successfully. Pass a name in the query string or in the request body for a personalized response.";

    context.res = {
        // status: 200, /* Defaults to 200 */
        body: responseMessage
    };
}
```

2.1.2 function.json

```
{
  "bindings": [
    {
      "authLevel": "anonymous",
      "type": "httpTrigger",
      "direction": "in",
      "name": "req",
      "methods": [
        "get",
        "post"
      ]
    },
    {
      "type": "http",
      "direction": "out",
      "name": "res"
    }
  ]
}
```

2.2 Function Name : Countofpalindromessecond

2.2.1 index.js

```
module.exports = async function (context, req) {
    context.log('JavaScript HTTP trigger function processed a request.');
    var rem,temp=0,rev=0,count=0;
    for(let i=1;i<=2000;i++)
    {
        temp=i;
        while(i>0)
        {
            rem=i%10;
            rev=rev*10+rem;
            i=parseInt(i/10);
        }
        if(temp==rev)
        {
            count=count+1;
        }
        rev=0;
        i=temp;
    }

    const name = (req.query.name || (req.body && req.body.name));
    const responseMessage = name
        ? "Hello, " + name + ". This HTTP triggered function executed successfully and there are
"+count+" palindromes between 1 and 2000."
        : "This HTTP triggered function executed successfully. Pass a name in the query string or in
the request body for a personalized response.";

    context.res = {
        // status: 200, /* Defaults to 200 */
        body: responseMessage
    };
}
```

2.2.2 function.js

```
{
  "bindings": [
    {
      "authLevel": "anonymous",
      "type": "httpTrigger",
      "direction": "in",
      "name": "req",
      "methods": [
        "get",
        "post"
      ]
    },
    {
      "type": "http",
      "direction": "out",
      "name": "res"
    }]}
```

3. Invocation : Performance Test

3.1 Concurrent invocation

```
import webbrowser
i=1
for i in range(100):
    webbrowser.open('https://sc20at.azurewebsites.net/api/Factorialhttp?name=sc20at')
    webbrowser.open('https://sc20at.azurewebsites.net/api/Countofpalindromes?name=sc20at')
    webbrowser.open('https://sc20atsecond.azurewebsites.net/api/Countofpalindromessecond?
name=sc20at')
    webbrowser.open('https://sc20atsecond.azurewebsites.net/api/Factorialhttpsecond?
name=sc20at')
```

3.2 Subsequent invocation

```
import requests
i=1
for i in range(100):
    r =requests.get('https://sc20at.azurewebsites.net/api/Factorialhttp?name=sc20at')
    r =requests.get('https://sc20at.azurewebsites.net/api/Countofpalindromes?name=sc20at')
    r =requests.get('https://sc20atsecond.azurewebsites.net/api/Countofpalindromessecond?
name=sc20at')
    r =requests.get('https://sc20atsecond.azurewebsites.net/api/Factorialhttpsecond?
name=sc20at')
```