

COMPUTAÇÃO ESCALÁVEL

Estudo de Caso com JMeter



ROTEIRO

- JMeter
- Plano de Teste
- Exemplo
- Resultados

JMETER

- Multiplataforma e gratuito
- Gera gráficos em CSV, tabelas e gráficos
- Execução distribuída
- Suporta supervisores como:
 - HTTP, HTTPS, LDAP, JMS

JMETER

O JMeter simula um grupo de usuários enviando solicitações para um servidor de destino e retorna estatísticas, que mostram o desempenho/funcionalidade do servidor/aplicativo de destino por meio de tabelas, gráficos, etc.



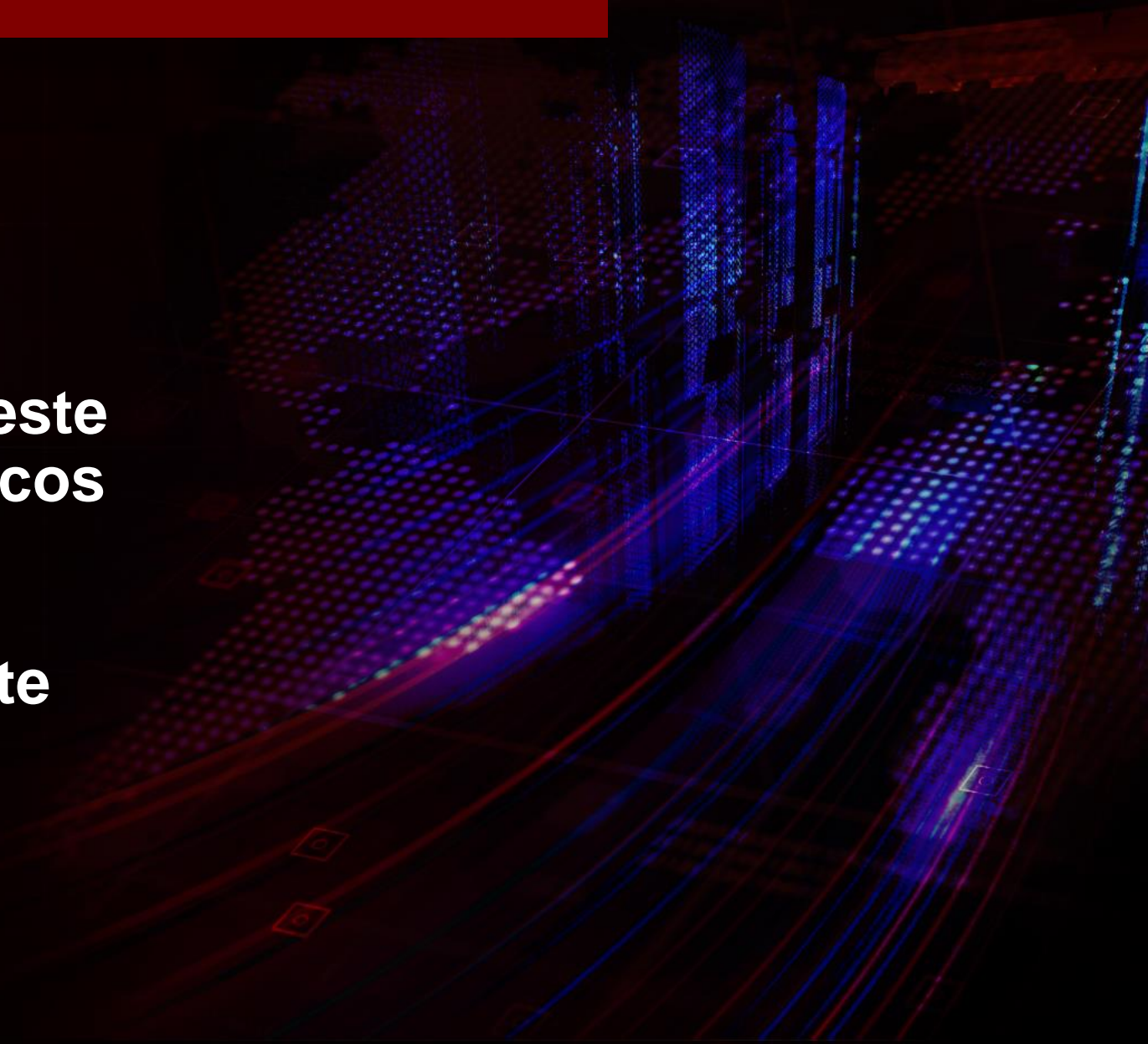
PLANO DE TESTE

- Um Plano de Teste pode ser visto como um container para execução de testes
- Define o que testar e como fazê-lo
- Um plano de teste completo consiste em um ou mais elementos, como grupos de threads, controladores lógicos, controladores geradores de amostra, ouvintes, temporizadores

EXEMPLO

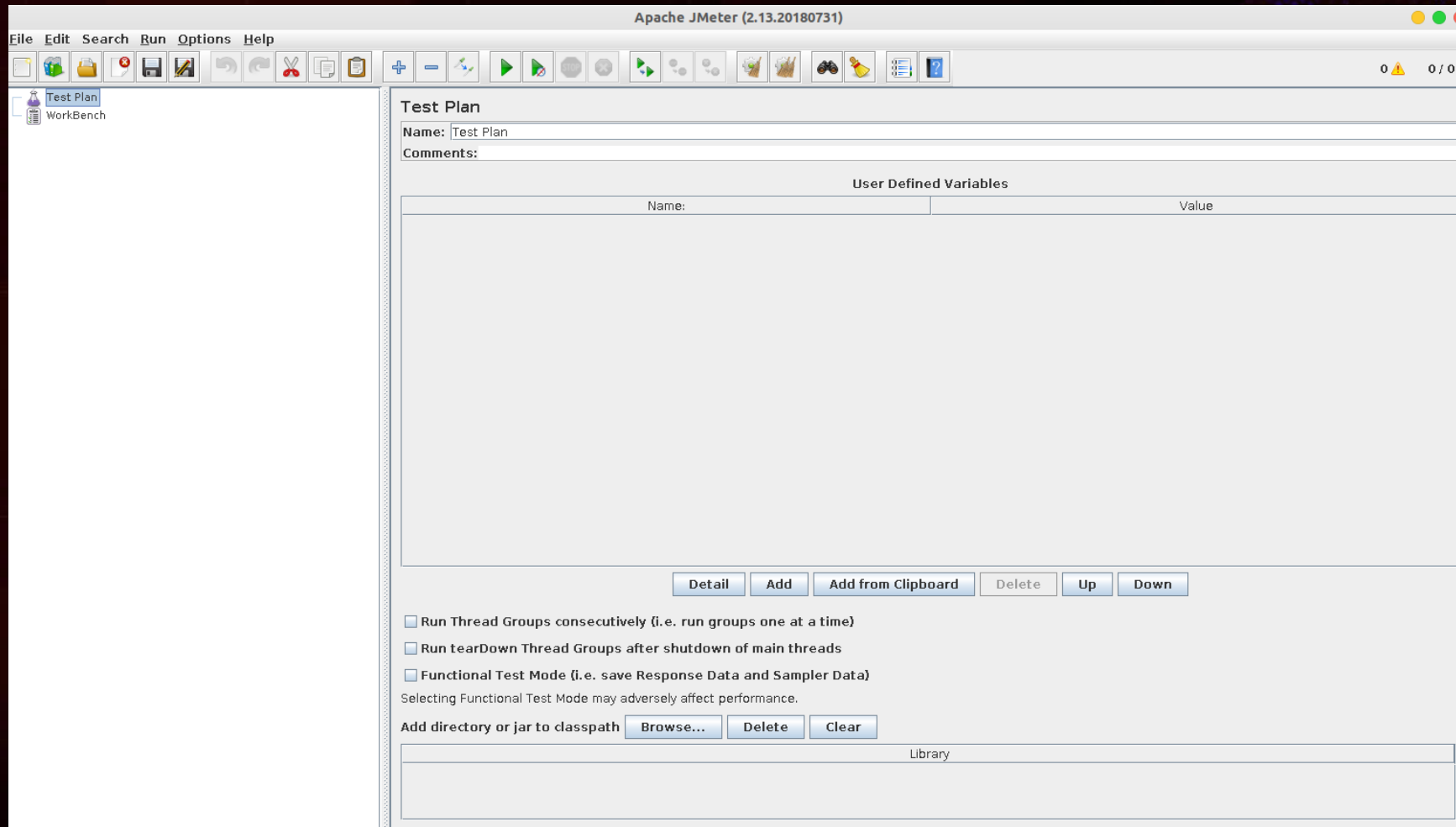
Plano de Teste Web

- Passos
 - Iniciar o Jmeter
 - Renomear o Plano de Teste
 - Adicionar grupo de tópicos
 - Adicionar amostrador
 - Adicionar ouvinte
 - Executar o plano de teste
 - Saída gerada



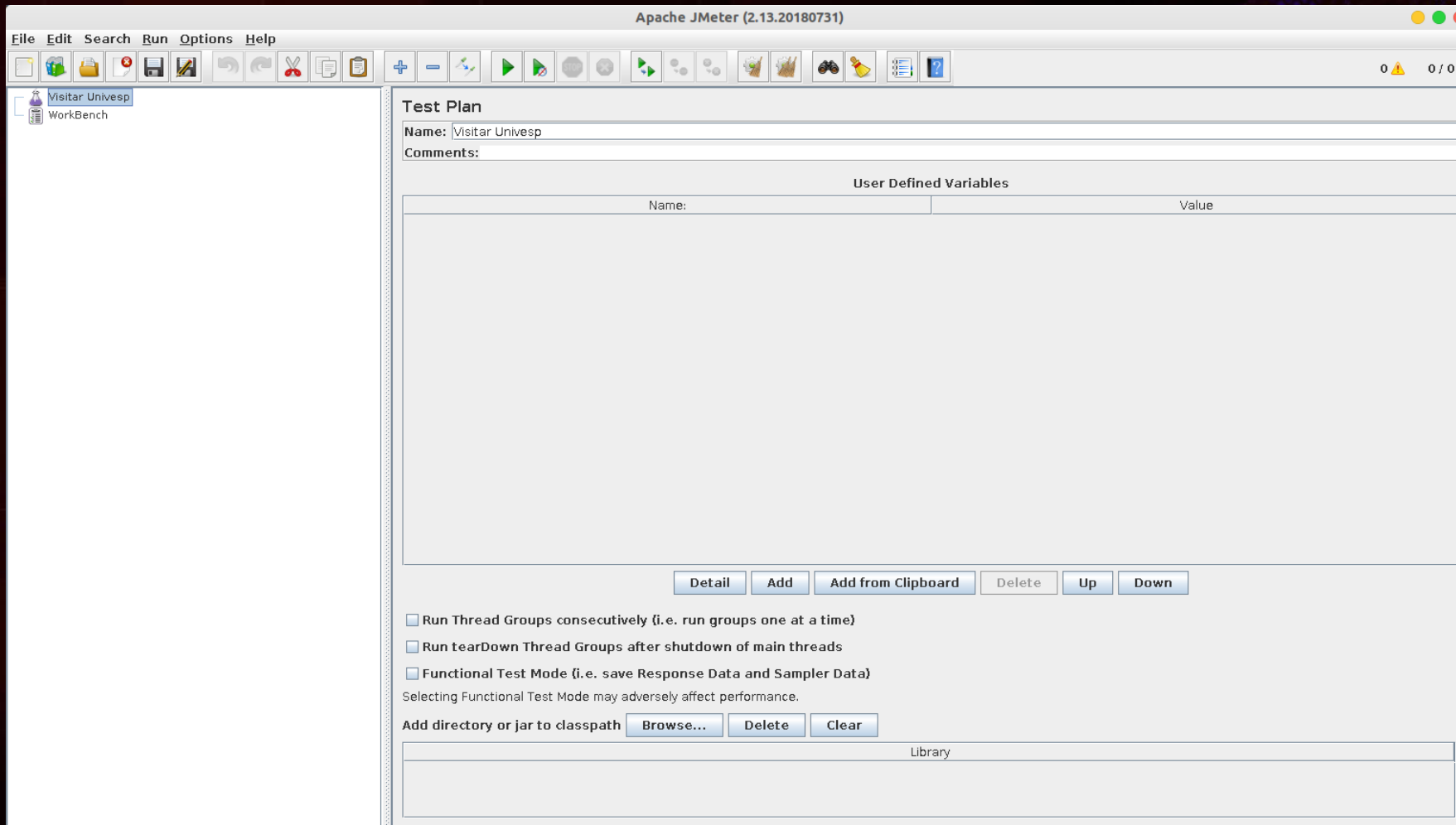
EXEMPLO

Iniciar JMeter



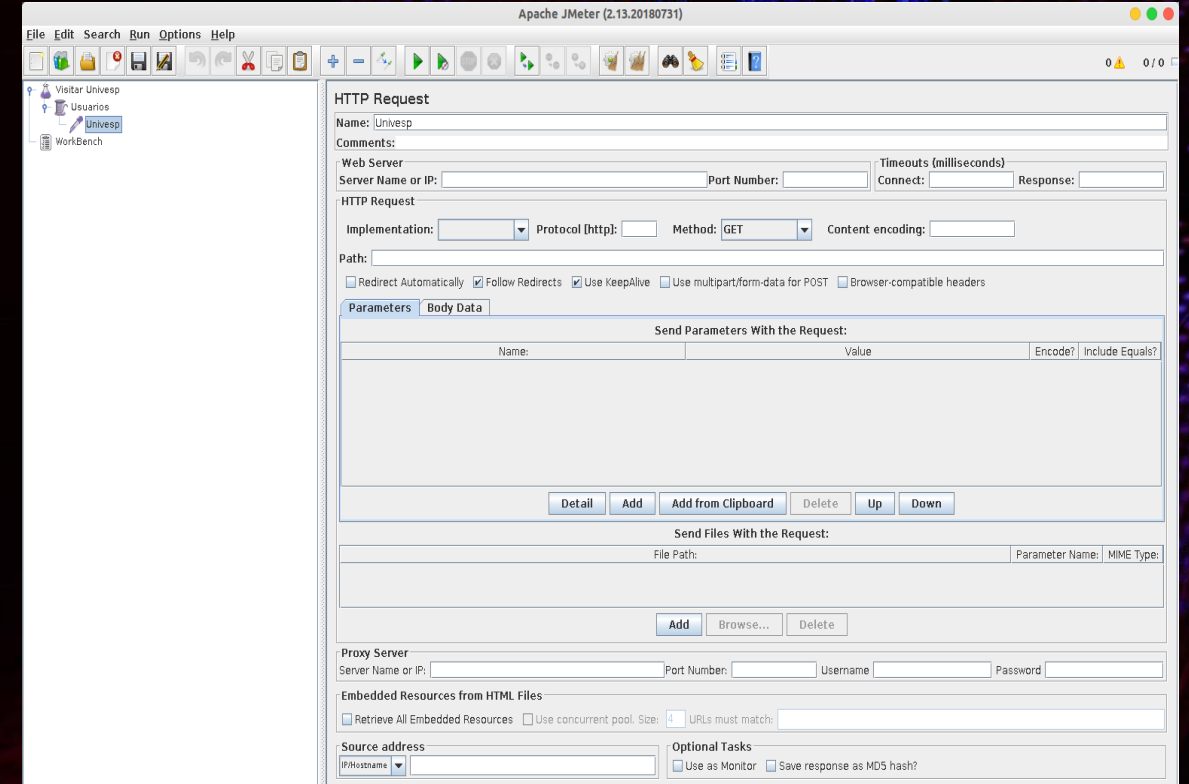
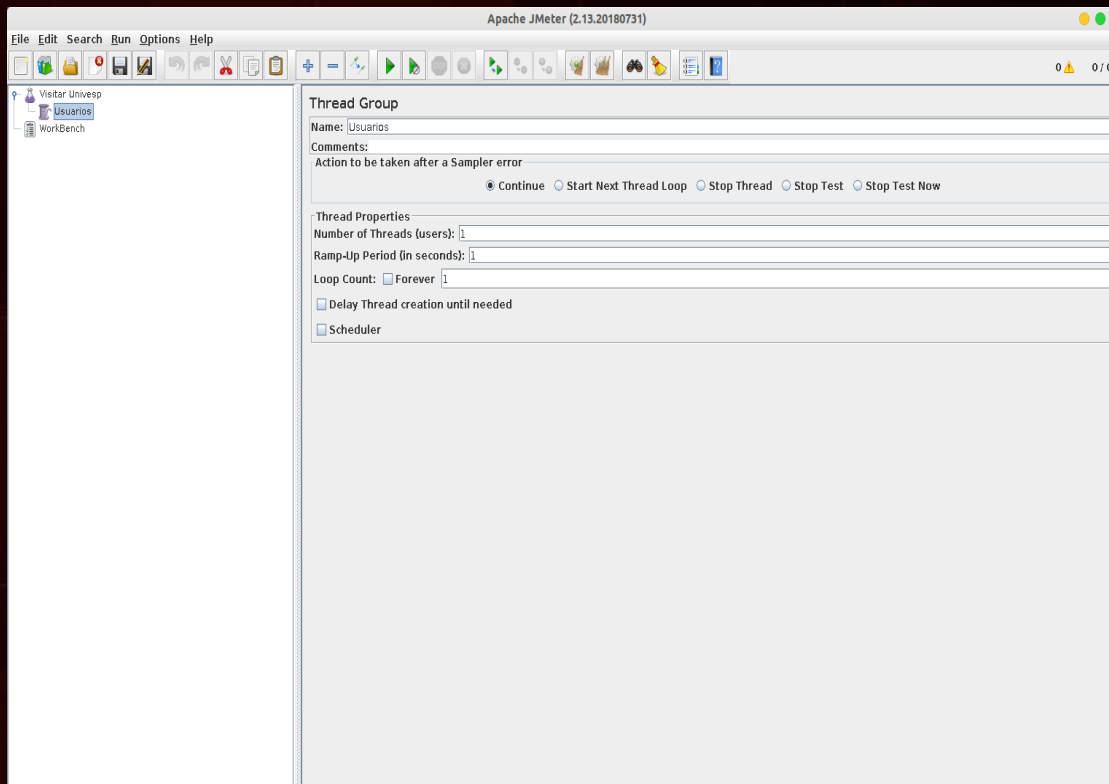
EXEMPLO

Renomear o plano de teste para: Testar Univesp



EXEMPLO

Adicionar grupo de tópicos



EXEMPLO

Adicionar amostrador

Apache JMeter (2.13.20180731)

File Edit Search Run Options Help

0 0 / 0

Visitar Univesp
Usuarios
Univesp
WorkBench

HTTP Request

Name: Univesp

Comments:

Web Server

Server Name or IP: univesp.br Port Number: Timeouts (milliseconds)
Connect: Response:

HTTP Request

Implementation: Protocol [http]: Method: GET Content encoding:

Path: /

☐ Redirect Automatically ☒ Follow Redirects ☒ Use KeepAlive ☐ Use multipart/form-data for POST ☐ Browser-compatible headers

Parameters Body Data

Send Parameters With the Request:

Name:	Value	Encode?	Include Equals?
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Detail Add Add from Clipboard Delete Up Down

Send Files With the Request:

File Path:	Parameter Name:	MIME Type:
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Add Browse... Delete

Proxy Server

Server Name or IP: Port Number: Username: Password:

Embedded Resources from HTML Files

☐ Retrieve All Embedded Resources ☐ Use concurrent pool. Size: 4 URLs must match:

Source address

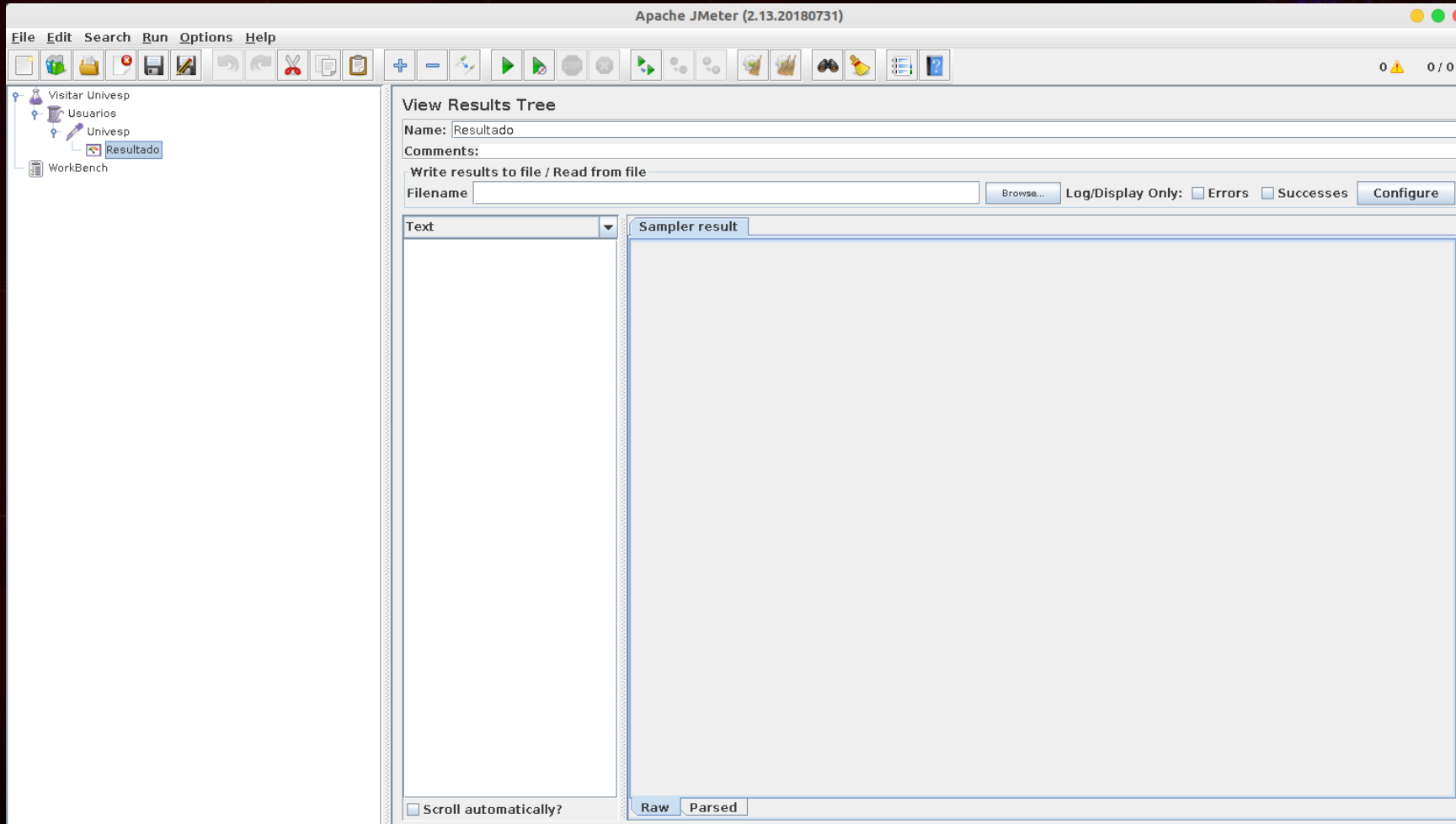
IP/Hostname:

Optional Tasks

☐ Use as Monitor ☐ Save response as MD5 hash?

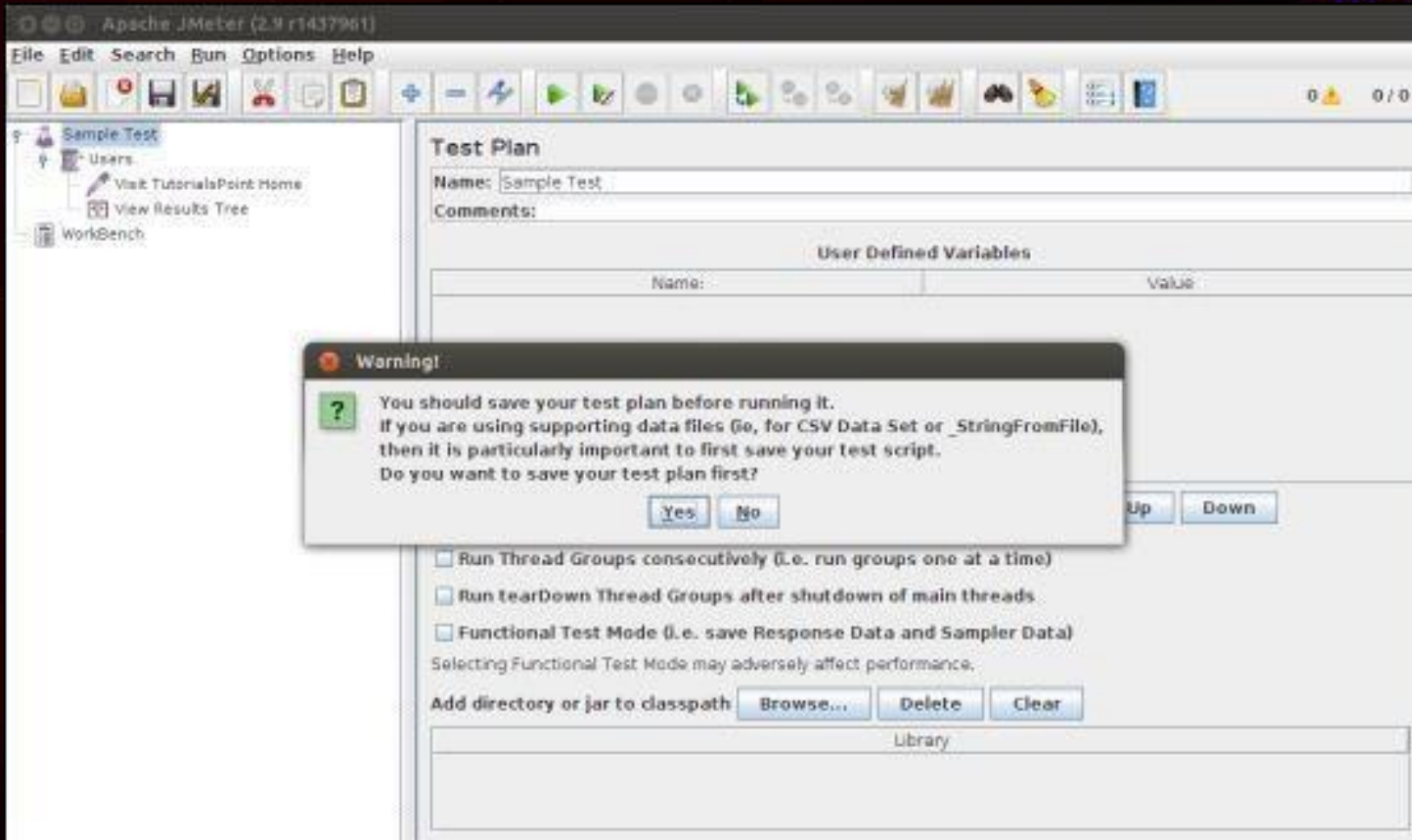
EXEMPLO

Adicionar ouvinte



EXEMPLO

Executar plano de teste



EXEMPLO

Resultado

Resultado.jmx (/home/julio/Resultado.jmx) - Apache JMeter (2.13.20180731)

File Edit Search Run Options Help

Visitar Univesp
Usuarios
Univesp
Resultado
WorkBench

View Results Tree

Name: Resultado
Comments:

Write results to file / Read from file
Filename: Browse... Log/Display Only: ☐ Errors ☐ Successes

Text
Univesp

Sampler result Request Response data

Connect Time: 171
Latency: 368
Size in bytes: 16668
Headers size in bytes: 1913
Body size in bytes: 14755
Sample Count: 1
Error Count: 0
Response code: 200
Response message: OK

Response headers:
HTTP/1.1 200 OK
Date: Mon, 12 Sep 2022 13:54:47 GMT
Content-Type: text/html
Transfer-Encoding: chunked
Connection: keep-alive
Vary: Accept-Encoding
Status: 200 OK
Cache-Control: max-age=0, private, must-revalidate
X-Request-Id: 4e190921-74f7-4e60-90b4-cd08471dc7c5
X-Runtime: 0.358413
Set-Cookie: _scadufax_session=em1uv1locHBoYWRnT0ozUU84eFgxY0NDMGZYQVg5VHNEak02OG1TrnBIWWRqZVEwMjJhkeHZMNk43TWowOHpjMUdp path=/; HttpOnly
X-Powered-By: Phusion Passenger 5.3.4
CF-Cache-Status: DYNAMIC
Report-To: {"endpoints":[{"url":"https://va.nel.cloudflare.com/vreport/v3?s=1WSyQBogaDBRLCqtvjIPbQttZnsl%2F3WSPFQYMMHavVzoE NEL: {"success_fraction":0,"report_to":"cf-nel","max_age":604800}
Server: cloudflare
CF-RAY: 749923144bdce728-EWR
alt-svc: h3=":443"; ma=86400, h3-29=":443"; ma=86400

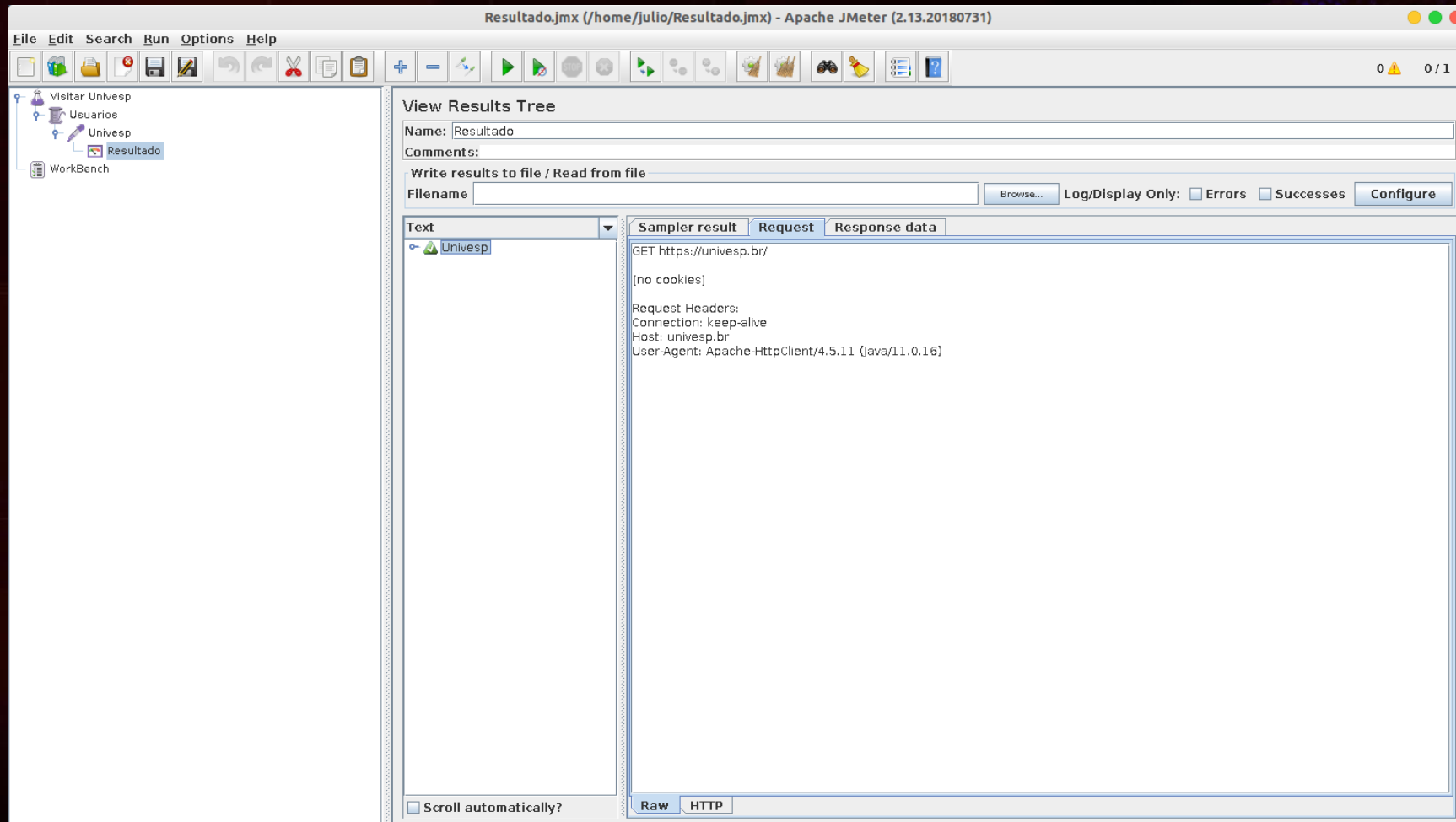
HTTPSampleResult fields:
ContentType: text/html
DataEncoding: null

☐ Scroll automatically?

Raw Parsed

EXEMPLO

Resultado



EXEMPLO

Resultado

Resultado.jmx (/home/julio/Resultado.jmx) - Apache JMeter (2.13.20180731)

File Edit Search Run Options Help

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Name: Resultado
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Text
Univesp

Sampler result Request Response data

```
<!DOCTYPE html>
<html lang="pt-br">
<head>

  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1">

  <meta name="keywords" content="">
  <meta name="description" content="">
  <meta property="og:image" content="https://univesp.br/sites/58f6506869226e9479d38201/theme/images/thumb-univesp.jpg">
  <meta property="og:title" content="Univesp _Universidade Virtual do Estado de São Paulo">

  <title>
    Home page _ Univesp |

  </title>

  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0-alpha.6/css/bootstrap.min.css">
  <link rel="stylesheet" href="https://code.jquery.com/ui/1.11.3/themes/smoothness/jquery-ui.css">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/font-awesome/4.7.0/css/font-awesome.min.css">
  <link href="/sites/58f6506869226e9479d38201/theme/stylesheets/custom.css?1643802139" media="screen" rel="stylesheet" type="text/css" />

  <!-- Google Fonts -->
  <link href="https://fonts.googleapis.com/css?family=Open+Sans:400,300,300italic,400italic,600,600italic,700italic,700,800,800italic" rel="stylesheet" type="text/css">
  <link href="https://fonts.googleapis.com/css?family=Barlow:300,400,700" rel="stylesheet">

  <link rel="stylesheet" type="text/css" href="/assets/locomotive/wysihtml5_editor-b4f58f3877730b43505cbda3a6e0ea4cd726201b999e2039660fdb751bcf6f3.css"></head>

  <style>
    .card hr { display: none }
  </style>
```

Search: Find ☐ Case sensitive ☐ Regular exp.

☐ Scroll automatically?

BIBLIOGRAFIA

1. https://www.tutorialspoint.com/jmeter/jmeter_overview.htm
2. <https://jmeter.apache.org/>
3. <https://www.loadview-testing.com/pt-br/blog/5-exemplos-de-teste-de-carga-de-5-jmeter/>
4. <https://www.devmedia.com.br/teste-de-performance-com-jmeter/34621>