

- Regular Expression in JMeter (continued)
- Dynamic Values Extraction in JMeter with Realtime Use Cases Examples: -
- The General Expression
- E.g. of Multiple Values Extraction by Ignoring Middle Values
- E.g. of Escape Character
- E.g. of Extracting a Value in Newline
- E.g. of Extracting a Value with Left Boundary but No Right Boundary
- E.g. of Extracting a Value with both Varying Left & Right Boundary
- E.g. of Extracting the Single Value in Response with No Left & No Right Boundary
- E.g. of Extracting Complete Response
- E.g. of Extracting Response (Status) Code
- E.g. of Extracting Response Message
- E.g. of Extracting a Value from Response Header
- E.g. of Extracting Complete Headers
- E.g. of Capturing Last Dynamic Value (or Selection)
- **V() function**
- Parameterization within Parameterization **OR** Nested Parameterization

The general expression: - **(.+?)** don't use * we are using 80% this regex OR [(

1. E.g. of Multiple Values Extraction by Ignoring Middle Values: - .+

- Line concept.
- Hole response basically in one line.
- One line response.
- Coding wises this a one line.
- Let us say I need all the values.
- So many dynamic values in the line.

The screenshot shows the JMeter interface with the 'View Results Tree' listener selected. The tree view on the left lists various test elements, including 'case 02_Eg_MultipleValue'. The main panel displays the response body of a sampler named 'case 02_Eg_MultipleValue'. A red box highlights a specific JSON object within the response body:

```

<html>
<head></head>
<body>
{"domain": "", "localization": "de-DE", "gateWay": "http://public-gateway-cloud-abc.com", "identityProvider": "http://public-gateway-cloud-abc.com/api/v1/identity-provider", "customerDNS": "General", "customerName": "jojo", "staticCacheService": "static-cache-service-cloud-abc.com", "id": "20476939-8465-42f4-adcd-61455d9d830e", "parentId": null, "customerId": "1234567", "orderId": "7bc1779f-735f-410a-ad6f-4f7455d41312", "licenseId": "73fb4c45-771d-4cd1-a6d6-c54406407c78", "name": "HP LoadRunner License", "status": "Active", "childrenCount": 0, "licensed": true, "purchaseDate": "1511266812000", "expirationDate": "1542802812000"}
</body>
</html>

```

Around seven dynamic values are there

This screenshot is identical to the one above, showing the JMeter interface with the 'View Results Tree' listener selected. The tree view on the left lists various test elements, including 'case 02_Eg_MultipleValue'. The main panel displays the response body of a sampler named 'case 02_Eg_MultipleValue'. A red box highlights a specific JSON object within the response body:

```

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</body>
</html>

```

Jest copy the line

```

<html>
<head></head>
<body>
{
  "domain": "",
  "localization": "de-DE",
  "gateWay": "http://public-gateway-cloud-abc.com",
  "identityProvider": "http://public-gateway-cloud-abc.com/api/v1/identity-provider",
  "customerDNS": "General",
  "customerName": "jojo",
  "staticCacheService": "static-cache-service-cloud-abc.com",
  "id": "20476939-8465-42f4-adcd-61455d9d830e",
  "parentId": null,
  "customerId": "1234567",
  "orderId": "7bc1779f-735f-410a-ad6f-4f7455d41312",
  "licenseId": "73fb4c45-771d-4cd1-a6d6-c54406407c78",
  "name": "HP LoadRunner License",
  "status": "Active",
  "childrenCount": 0,
  "licensed": true,
  "purchaseDate": "1511266812000",
  "expirationDate": "1542802812000"
}

```

```
"status":"Active", "childrenCount":0, "licensed":true, "purchaseDate":1511266812000,  
"expirationDate":1542802812000}  
</body>  
</html>
```

Past it in note pad

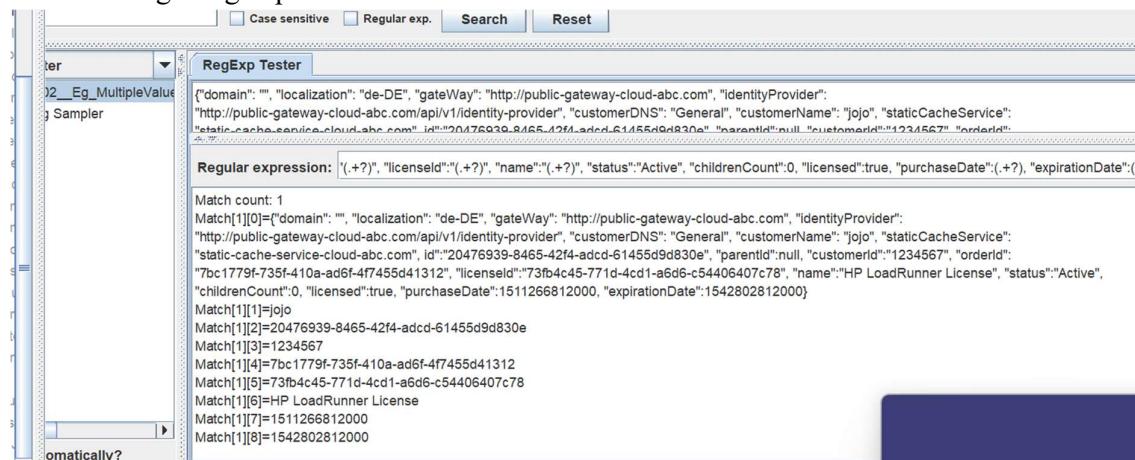
Extracting the dynamic values using with (.+?)

```
{"domain": "", "localization": "de-DE", "gateway": "http://public-gateway-cloud-abc.com", "identityProvider": "http://public-gateway-cloud-abc.com/api/v1/identity-provider", "customerDNS": "General", "customerName": "jojo", "staticCacheService": "static-cache-service-cloud-abc.com", id: "20476939-8465-42f4-aecd-61455d9d830e", "parentId": null, "customerId": "1234567", "orderId": "bc1779f-735f-410a-adef-4f745d41312", "licensedId": "73fb4c45-771d-4cd1-a6d6-c54406407c78", "name": "HP LoadRunner License", "status": "Active", "childrenCount": 0, "licensed": true, "purchaseDate": "1511266812000", "expirationDate": "1542802812000"}  
  
{"domain": "", "localization": "de-DE", "gateway": "http://public-gateway-cloud-abc.com", "identityProvider": "http://public-gateway-cloud-abc.com/api/v1/identity-provider", "customerDNS": "General", "customerName": "(.+?)", "staticCacheService": "static-cache-service-cloud-abc.com", id: "(.+?)", "parentId": null, "customerId": "(.+?)", "orderId": "(.+?)", "licensedId": "(.+?)", "name": "HP LoadRunner License", "status": "Active", "childrenCount": 0, "licensed": true, "purchaseDate": "(.+?)", "expirationDate": "(.+?)"}  

```

Copy the extracted value and past it regex test

And we are getting expected results.



Add regex

The special is

Ignoring Middle Values

```

1 "customerName": "jojo", "staticCacheService": "static-cache-service-cloud-abc.com", "id": "20476939-8465-42f4-adcd-61455d9d830e", "parentId": null
2 "customerName": "(.+?)", "staticCacheService": "static-cache-service-cloud-abc.com", "id": "(.+?)", "parentId": null, "customerId": "(.+?)", "order
3 "customerName": "(.+?)", "+id": "(.+?)", "parentId": null, "customerId": "(.+?)", "orderId": "(.+?)", "licenseId": "(.+?)", "name": "HP LoadRunner
4
5
6
7
8
9 if your using the neckeat .+ it is escaping the value
10 if your using same thing inside the (.+?) it will extracting the value
  
```

Case 3 | E.g. of Escape Character

This is the response dynamic value

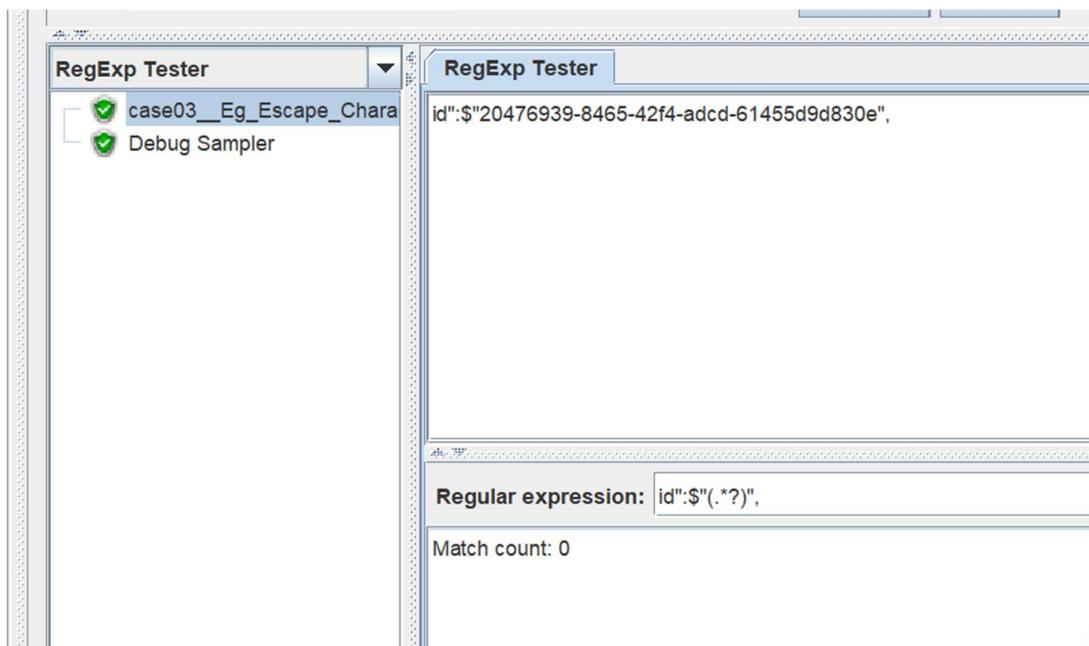


this is the response dynamic, entair responce --> id": "\$"20476939-8465-42f4-adcd-61455d9d830e",

prepare regex and test in regex test

id": "\$"(.+?)",

not working



Whenever expression that you prepare, either left and side and right and side, if any of meta characters comes

\$ this is meta character.

If any meta character comes regex directly fail.

\$ is coming inside of the value

So, we have use escape concept here, you have to escape \$ this

Before \$ this you have give \

id":\\$(.*?)" ,

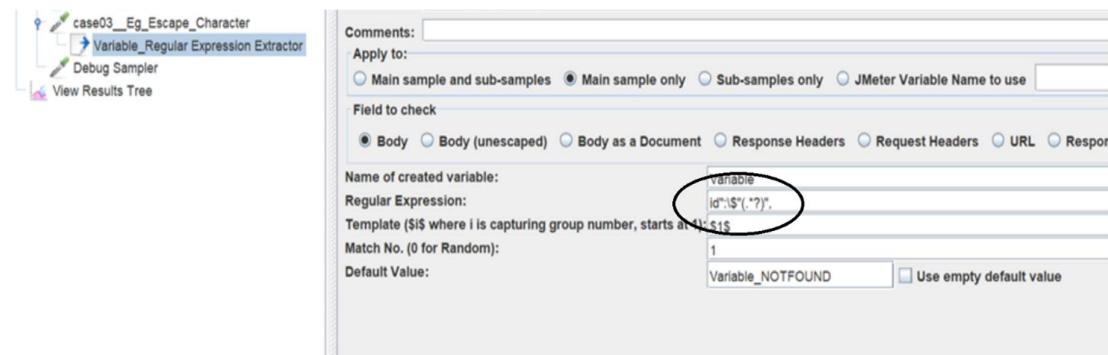
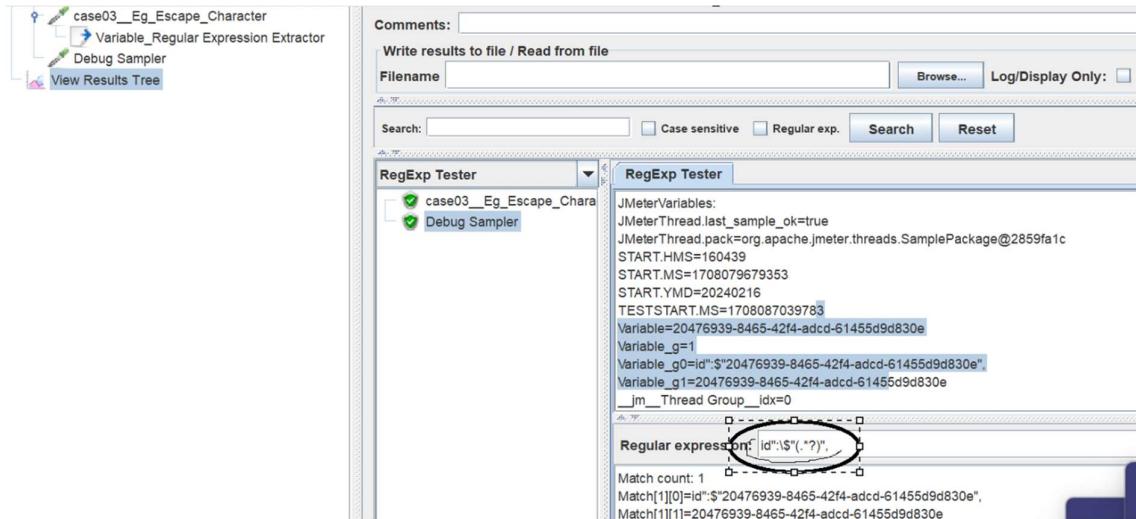
what are the meta characters → this are the meta characters

▪ Here is a list of the common **meta characters** and their meaning:-

()	- grouping : this enclose the portion of the match string to be returned	\d	One Digit
[]	- represents one character	\D	One Non-digit character
{ }	- repetition	\s	One Whitespace
.	- match any character (whether its number or alphabet or any special character or symbol or any space, except newline)	\S	One Non-whitespace character
+ or *	- match one or more times, (* : 0 or more, + : 1 or more)	\w	One Alphanumeric character
?	- don't be greedy, i.e. stop when first match succeeds (0 or 1 time), except newline.	\W	One Non-alphanumeric character
\	- escape character used for escaping [{}]\^\$?*+.+	\b	word boundary
	- alternatives (its called pipe), "either or"	[abc]	Only a, b, or c
s	- allows to match a newline character	[^abc]	Not a, b, nor c
^	- matches the beginning of a string or line (its called Anchor)	[a-z]	Characters a to z
^ \$	- start and end of string or line	[A-Z]	Characters A to Z
		[0-9]	Numbers 0 to 9
		\t	tab
		\n	newline

▪ **3 Important Points for Left & Right Boundary (LB & RB):-**

- 1) They should taken from same line in most of the cases.
- 2) There is **no** length constrain.
- 3) There **must be no** dynamic values in LB & RB.



Case 3.1:-

\ - escape character used for escaping [{}]\^\$\|?*+.+

This is the one dynamic value.

nonce=JdHf1_8N-EdjZsERyIbqCl04PTTuOU9RtrMFjRDfDfEAc\x26acr_values

The screenshot shows a JMeter interface with a "Response Data" panel. The text in the panel is a long URL string: "nonce=JdHf1_8N-EdjZsERylbqCIo4PTTuOU9RtrMFjRDfDfEAc\x26acr_values". A large blue rectangular redaction box is positioned in the bottom right corner of the panel.

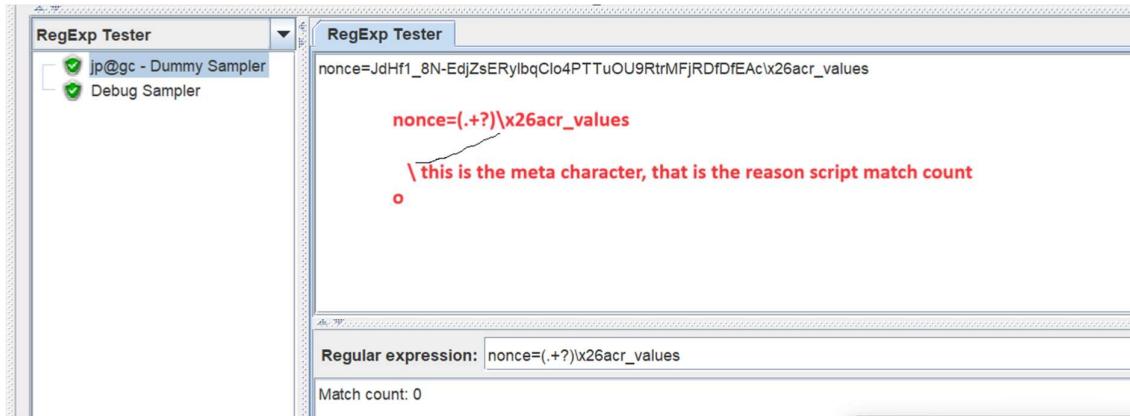
Preparing regex

```
nonce=JdHf1_8N-EdjZsERylbqCIo4PTTuOU9RtrMFjRDfDfEAc\x26acr_values
nonce=(.+?)\x26acr_values
preparing regext
```

Regex test

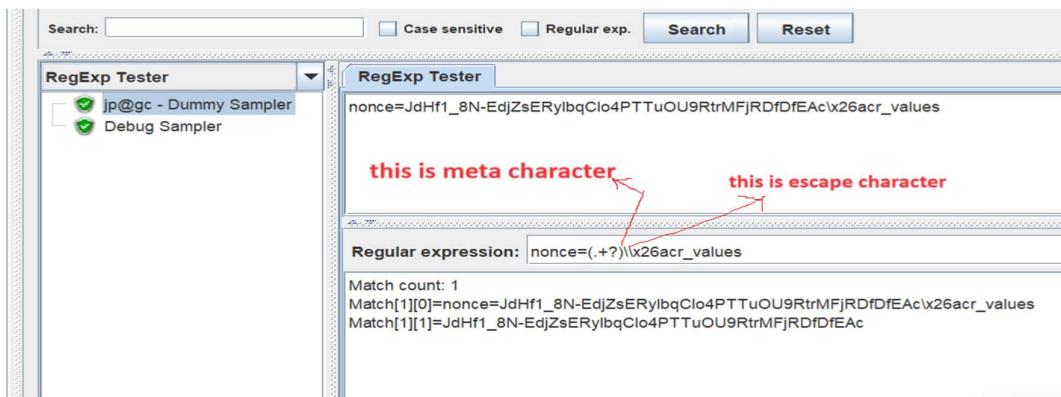
The screenshot shows the JMeter "RegExp Tester" tool. On the left, the "Samplers" tree view shows "jp@gc - Dummy Sampler" and "Debug Sampler" both checked. The main panel displays the same URL string as the previous screenshot. At the bottom, there is a "Regular expression:" input field containing "nonce=(.+?)\x26acr_values" and a "Match count:" label followed by the value "0".

It is not working, match count 0, the reason is meta character

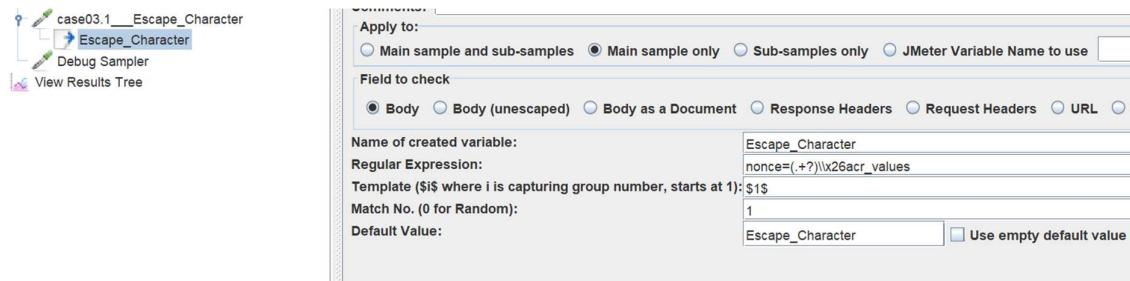


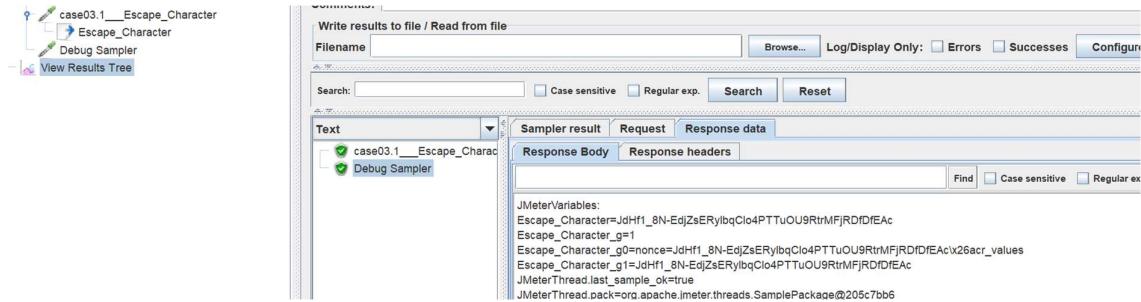
Now we are using escape character \

Now using escape character, match count coming 1



Working





In Telugu note book

Challenge :- (1.1) Escape program | meta character |

నుండి regular expression ద్వారా work చేయాలి.

This is the value : `id": "$90476939-8465-42f4-9dcd-6145fd9d830e",`

నిబ్బ ద్వారా dynamic value

`id": "$(+?)",`

extract చేయాలి, regen test case check చేయాలి
work చేయాలి.

why?

\$ ఏప్పటికీ meta character :-

right Boundary చేయాలి, left Boundary చేయాలి, కానీ
meta character ఏప్పటికీ work చేయాలి, కానీ, regen
fail చేయాలి.

we have to use escape character for :- (\ Back character is escapechar)

Before meta character we have to use escape character

`id": "\$"+?", => Now it's working`

3.2.2 :- escape meta character

nonce = JdHf1-8N-EdjZsERylbqC1o4PTTuOU9RtrMFjRDiDfEAc|x26acr-value | Dynamic value

nonce = (+?)\x26acr-value => work చేయాలి | extract

nonce = (+?)\\x26acr-value | use \ | Use this meta character |

This is also meta character

Extracting a Value in Newline

Some time there is value no left boundary and right boundary

This is response body in that we have dynamic value

This value don't have any left and right bondaries.

The screenshot shows a software interface for testing or extracting data from web responses. On the left, a tree view lists several requests and cases, including:

- Request_1
- Request_2
- Request_3
- Eg_Default_Value_EnterStore
- Request
- case 02_Eg_MultipleValues_Extraction_with_Ignoring_
- case03_Eg_Escape_Character
- Variable_Regular Expression Extractor
- case 04_Eg_Extracting_from_NewLine_1
- Variable_Regular Expression Extractor
- Variable_Regular Expression Extractor
- case 04.1_Eg_Extracting_from_NewLine_2
- case 05_Eg Value with Left Boundary but No Right Bo

In the center, there are simulation settings and request details:

- Simulate Response Time (sleep): checked
- Request Data: GET https://petstore.cfapps.io/login
- GET data:
- Cookie Data: JSESSIONID=15494C8BB91B5E5893F98E046DC9F813; __VCAP_ID__=4fe0b1bb-e6d0-4ffc-5583-5aec

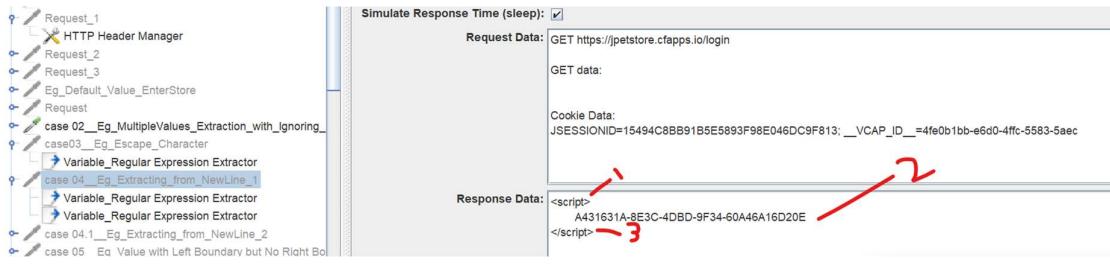
On the right, the response data is shown:

```
<script>
A431631A-8E3C-4DBD-9F34-60A46A16D20E
</script>
```

A red arrow points to the value "A431631A-8E3C-4DBD-9F34-60A46A16D20E" in the response data pane.

With that value three separate lines

Second line there is no LB and RB.



Most of the people do like, but This is wrong way

```
<script>
    A431631A-8E3C-4DBD-9F34-60A46A16D20E
</script>

<script>(.+?)</script>
```

Match count 0

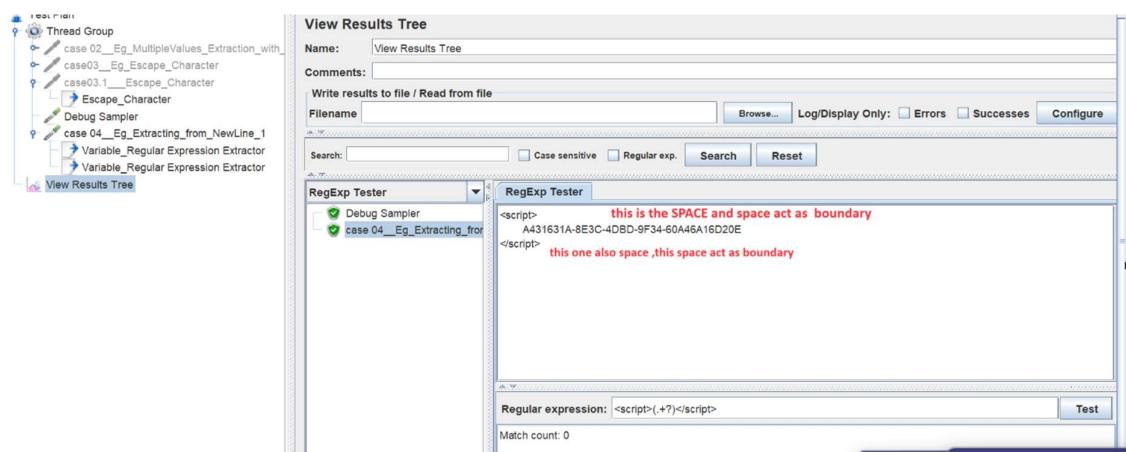


Let me explain

Space also acting boundary

Space is also acting as a boundary

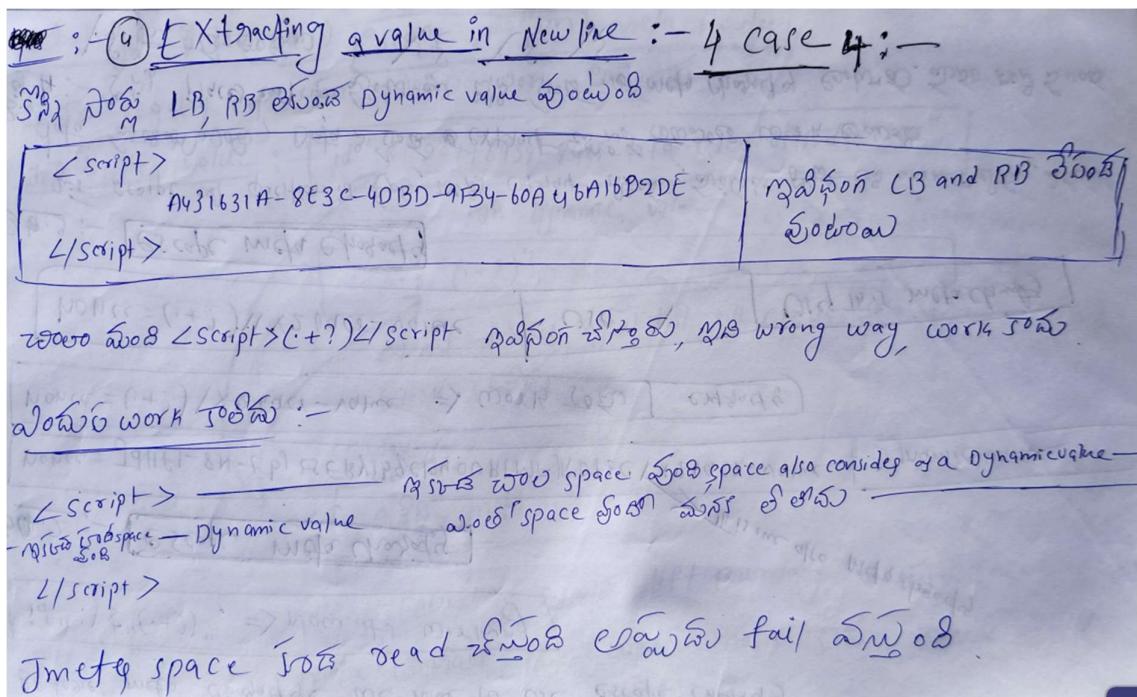
We don't know how much space



Solution is

<script> left boundary
\ means one escaping character.
S means one space.
+ means multiply the space, how much of space we don't know
(.+?) regex value
\ means one escaping character.
S means one space.
+ means multiply the space, how much of space we don't know
<script> Right boundary
<script>\s+(.*?)\s+</script>

Main sample and sub-samples (Main sample only) Sub-samples only JMeter Variable Name to use
Field to check Body Body (unescape) Body as a Document Response Headers Request Headers URL Response Code Response Message
Name of created variable: Variable
Regular Expression: <script>\s+(.*?)\s+</script>
Template (\$i where i is capturing group number, starts at 1): \$1\$
Match No. (0 for Random): 1
Default Value: Variable_NOTFOUND Use empty default value



Java බැංක් පරිදි පූරුෂ තොගය (\\S වෙතේ space හෝ) (+ නොවා) Note: - \\n also

\\S space ස්ථාන මත්තාව
+ \\S space මුදල පෙනෙනු ඇත්තා නොවා නොවා

තැබුණු crack the problem:

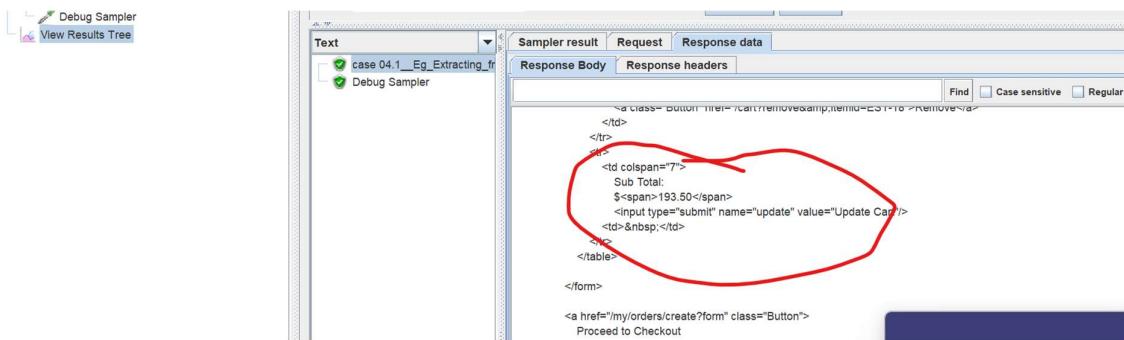
<script>\\S+(.+?)\\S+</script>

\\n also for newline

<script> LB
\\S space SMN0
+ \\S space මුදල පෙනෙනු මුදල SMN0 (+) නොවා

Dynamic value SMN0 (.+?)

\\S මුදල space
+ \\S මුදල multiply
<script> RB



Writing note book: -

⇒ dynamic value is same LB (Left Boundary) and
right Boundary இன்று எந்த (-) value கீழெலை

one use case ஒருமுறை சொல் easy தெரிய (one dynamic value)

Main topic :- Regular expression softime example :-

⇒ எந்த (+?) பிடி கோசி regular கீழெலை

⇒ 80% எந்த (+?) நி விடுதலை

⇒ மின் எந்த (+?) வாட்டு. அதை நிர்ணயித எந்த face

பேசு சலங்க வீது (real time example)

⇒ 30% வரிய regex ஏன் பிடி விடுதலை கீழெலை கீழெலை

⇒ மின் எந்த (+?) பிடி விடுதலை

⇒ மின் எந்த [a to z] கீழெலை விடுதலை :-

அந்த Dynamic value என்கின் some unknown value கீழெலை

அந்த Dynamic value என்கின் some unknown value கீழெலை.

so கீழெலை time out [a to z] கீழெலை கீழெலை.

Case number 2 :- 22 time in visitors

Now given with content com with data John
and so on also dynamic values, I identify who's value
is what.

JOB content will be something like id 1234567 number id 1234567 number id 1234567 number id 1234567 number, value can represent any of the value & regextest whatever, value can also contain some irrelevant data So to match, there's mainly dynamic only extract values. Irrelevant to regex fail cases. match perfect in both,

plan what we will do :-

only numbers മാത്രമേ

books time etc [a to z] format advice:-

EX:- "id": "7762170814250451", "name": "గ్రాఫిక్ వుడ్ సెల్వన"

single content env, $\text{env}_0(\cdot, \cdot)$ etc.
6.1.27. Estimate $\mathcal{B}(\mathcal{D}, \mathcal{E})$:

(at 0°) formate w_{max} :-

"id": "Co-9", "name": "ମହିଳା ପ୍ରକଟନ କେନ୍ଦ୍ର"

multiple value Extraction

case 2:-

single response em multiple dynamic values ആണും
 single line multiple എംഡ്സ്റ്റ്, like id ആണും, customer id
 ആണും, order id, licence id ലിക്കേ നോട്ടും ആണും, single
 response em { "dynamic values" }
 മുഴുവൻ വരുത്താനുള്ള ഒരു content

Example:-

```
{ "domain": "", "localization": "d0DE", "gateway": "id": "204349T1769567", "pageId": "123456789", "order Id": "25679453524", "licence Id": "bydomain", }
```

single content em ഉജോഡാ ഡാറ്റ, ഒരു വിവരം ഹാബലിൽ
 ദാഖലിക്കാം.

Extract അഥവാ :-

Step 1:- സൗഖ്യം (regex) saparate regular regex ആണോ ഒരു way to use.

Step 2:- In single only multiple group we can do.

which step we like do smart work :-

dynamic value കൂടുതലും place on (+?) ആണുമോ, extract
 ചെയ്യാം, regular വീഴ്ച ചെയ്യാം. But main thing is

```

"customergid": "(+?)", "staticcacheservice": "static-cache-service-cloud-abc.com", "id": "(+?)", "parentid": null
"customrgid": "(+?)", "ordrgid": "(+?)", "licensrgid": "(+?)", "name": "HP Loadrunner licence", "status": "Active",
"childrencount": 0, "licensed": true, "purchaseDate": "(+?)", "expirationDate": "(+?)"
}

```

ఈప్రాగ్రమ్ లో రెజన్ వంటావు, But నొఫ్సిల్ స్పెషల్ అబ్జెక్ట్, ఇంట్ హోల్ కంట్యూన్ ఎంగ్లీష్

"customrgid": "(+?)", dynamic value place can (+?) అల్యూన్
"staticcacheservice": "static-cache-service-cloud-abc.com", ⇒ నోట్ ప్లాట్ ప్లాట్ అల్యూన్ ఒమ్ లో మాత్రమే

"id": "(+?)", dynamic value
"parentid": null, ⇒ (+) వంటాలైన్

all id's రెజన్ కమన్ లో (+?)

"to", వారు లూస్ ఒమ్ వంటాలైన్ అట్ ఆప్ ప్లాట్ లో

* customrgid main value:
"customrgid": "(+?)", +id": "(+?)", + "customrgid": "(+?)", "ordrgid": "(+?)", "licensrgid": "(+?)", +
title that we are using this

రెజన్ టెస్ట్ లో ఎక్స్‌ట్రాక్ట్ చేసినప్పుడు

+/-
if you are user needed mean (+/-)
close బ్రాక్యూస్ లో వాడితే దాని నెలక్క ఎంచుకోవాలి, దాని వాసమాటి వలులో
escape చేయాలి.

(+)
(+/-) Inside the Brackets వాడించాలి (+) It will extract the value

\$1\$2\$3\$4\$5\$6\$7 లో వాడించి

This is the Case 3:— hole topic

[a to z] tip:-
main n a to z
some extra data

concept లోన్న వాడుతామాద్ (+?) work లువుండి but
సూచ వచ్చుట, దాని లువుండి (a to z) లో లువుండి only.

Challenge :- (1) Escape program meta characters
and regular expression to work with.

this is the value :

MB Dynamic Value

$\text{id}": \text{S}^{(" (+?))}$,

→ mit -zähne gegen fest einchecken w**zähne**

Look good

why?

\$ Es8 meta Character :-

right Boundary char_j , left Boundary char_{j+1}
meta character char_k work to char_l , ~~regen~~, regen
fail char_m .

We have to use escape characters as :- (\ Back character is escape character)

before meta character we have to use escape character

`id": "\$(\'.+?)",` => Now it's working

3.2: escape meta character

nonce = JdHFI-8N-EbjtSERyibgcloyourTMF=jRdfzCyx2bacry-value | Dynamic value

nonce = (·+?) \x26 acr-value \Rightarrow works  extract

hence = (+?) \times 26acr-value

use \

Use this metachapter

3.4.3 :- escape meta character

2nd script en question id ఈయి, దోషీ extract చేసాడు, మహాన్ ఫ్రెంచ్ ఎం work జాల్సు, అదిని
data లోపించాలి, Data లోకి extract చేసిన తరువాద work లాంటి.

3.4.7 :- මෙයි places න්‍යා ස්ථ්‍යවාන් යින් පෙන් මෙහෙයුමේ තොරතුරු න්‍යා ස්ථ්‍යවාන් න්‍යා ස්ථ්‍යවාන් න්‍යා ස්ථ්‍යවාන්

; - 4 Extracting a value in Newline :- 4 case 4 :-

స్నాపోషన్లు LB, RB ద్వారా Dynamic value వుండుట

<script>

A431631A-8E3C-4DBD-9F34-60A46A16B2DE

</script>

ఇదినుగ్గి LB and RB ద్వారా
వుండుట

చెందిన మొదట <script>(.+?)</script> ఫలితం చిత్రంలు, ఈ wrong way, works రాశు.

అటుగొంతులు : -

<script> _____ నీటికి ఒక ప్రాణి కుటుంబము వుండు గా అటుగొంతులు కుటుంబము వుండు గా అటుగొంతులు

</script>

Jmeter space from read file కుటుంబము fail వుండు.

Java ల్యాప్ లో అటుగొంతు (\\s వాడుట Space \\n) (+ వాడుట)

\\s space కుటుంబము

Note:- \\n is \\t

+ అటుగొంతు కుటుంబము + so It will multiply

ఇప్పుడు crack the problem! -

<script>\\s+(.+?)\\s+</script>

\\n also try

newline

<script> LB

\\s space కుటుంబము

+ అటుగొంతు కుటుంబము దానికి (+) లాంచ్ చేసు

Dynamic value కుటుంబము (.+?)

\\s.\\s space

+ ముఖ్యము multiply

<script> RB

metacharacter starting with non skip character.

Ex 4:-

Jpet store demo application one dynamic challenge:-

<td colspan="7">

Sub Total:

\$ <space> 267.29 </space>

<input type="button" name="update" />

This is the value

Now 267.29 is correlate between both numbers

first <space> (+?) </space> which work properly, now unrelated number.

Sub Total: \$ + \$ <space> (+?) </space>

which work properly

Challenge 5:- Case 5:-

RB asks how to write regular expression (+)

(or)

(+) (or) (\s+)

Challenge 6:- Case 6:-

Now consider the value which, contains a series of numbers followed by letters, but on the LB side, RB side contains dynamic values which how to handle this

<space> 205 dg1234 AfghKL </space>

<space> 1kmgP56792phgmkl </space>

Dynamic value which, it's not predictable which

change example. only numbers.

Solution:-

<space> 205 dg1234 AfghKL </space> —> Question

<space> .+?([0-9]).+? </space> —> Answer

Challenge 7 - only dynamic value \rightarrow top to bottom \rightarrow LB's, RB's
Case 7 - nothing else only dynamic value \rightarrow LB's, RB's.

Step 1 Constant answer is :- $(?s)(^+)$ \rightarrow regular expression

Step 2 \rightarrow we will learn later on, we need to write code. \rightarrow (or)

Vars.put("singlevalue", prev.getResponseDataAsString());
Vars.put("complete_response", prev.getResponseDataAsString());

Challenge 8 - we have hole content, Complete to extract \rightarrow value, we use 7th challenge only

Case 7 - second way Beanshell post process on code \rightarrow regEx extract \rightarrow value.

❖ Regular Expression & Regular Expression Extractor:-

- RE is used in many languages like C, Java, Python, Excel, Macros, QTP, LoadRunner, Scripting Language like Perl or Shell, etc. It's a very powerful concept. And, as we have to master XPaths in Automation testing, same way, we have know RE in Performance Testing.
- In PT, Regular Expression is used for matching & extracting string/value from Response by giving contains and matching values as expression. JMeter includes the pattern matching software Apache Jakarta ORO till v5.5, which will be replaced by the built-in Java based one in future.

| | |
|--------|------|
| + or * | -> ? |
| . | -> ? |
| .+ | -> ? |
| .+? | -> ? |
| () | -> ? |
| (.+?) | -> ? |

- Regular expressions use certain characters as **meta characters** - these characters have a special meaning to the RE engine. Such characters must be escaped by preceding them with \ (backslash) in order to treat them as ordinary characters.

▪ Here is a list of the common **meta characters** and their meaning:-

| | | | |
|--------|--|--------|--------------------------------|
| () | - grouping : this enclose the portion of the match string to be returned | \d | One Digit |
| [] | - represents one character | \D | One Non-digit character |
| { } | - repetition | \s | One Whitespace |
| . | - match any character (whether its number or alphabet or any special character or symbol or any space, except newline) | \S | One Non-whitespace character |
| + or * | - match one or more times, (* : 0 or more, + : 1 or more) | \w | One Alphanumeric character |
| ? | - don't be greedy, i.e. stop when first match succeeds (0 or 1 time), except newline. | \W | One Non-alphanumeric character |
| \ | - escape character used for escaping [{}()\^\$?*.+ | \b | word boundary |
| | - alternatives (its called pipe), "either or" | [abc] | Only a, b, or c |
| s | - allows to match a newline character | [^abc] | Not a, b, nor c |
| ^ | - matches the beginning of a string or line (its called Anchor) | [a-z] | Characters a to z |
| ^ \$ | - start and end of string or line | [A-Z] | Characters A to Z |
| | | [0-9] | Numbers 0 to 9 |
| | | \t | tab |
| | | \n | newline |

▪ **3 Important Points for Left & Right Boundary (LB & RB):-**

- 1) They should taken from same line in most of the cases.
- 2) There is **no** length constrain.
- 3) There **must** be **no** dynamic values in LB & RB.

□ **Attributes of Regular Expression Extractors:-**

- Apply To:-
- Field to Check:-
- Template:- \$1\$: What & Why is this?
- Match No.:-
 - 1 or 2 or 3, etc. : 1st or 2nd or 3rd matched value will be picked **OR** a **random value** between a certain **range**.
 - 0 : a random matched value will be picked.
 - -1 : it makes the variable an array, & all matches are stored in it.
 - **matchNr** : it's the total count of all the matches (same in LoadRunner).
- Default Value:-

□ **What all those Extractors Does?**

Answer:- These extractor act as logic so that each time when we run the script, they extracts the particular value present at that location in the response and store it in a variable. And this correlation & parameterization happens every time for all users in backend when test is executed.

Dynamic Values Extraction in JMeter with Realtime Use Cases Examples:-

- 1) The General Expression:- `(.+?)` OR `([a-zA-Z0-9]+)` method
- 2) E.g. of Multiple Values Extraction by Ignoring (or Escaping) Middle Values:- `.+`
- 3) E.g. of Escape Character:- `\`
- 4) E.g. of Extracting a Value in Newline:- `\s+`
- 5) E.g. of Extracting a Value with Left Boundary but No Right Boundary:- Authorization: `(.+)` OR Authorization: `(\s+)`
- 6) E.g. of Extracting a Value with both Varying Left & Right Boundary:- `.+?([0-9]+).+?` OR `\D+(\d+)\D+`
- 7) E.g. of Extracting the Single Value in Response with No Left & No Right Boundary:- `(?s)(^.)` OR `vars.put("SingleValue", prev.getResponseDataAsString());`
- 8) E.g. of Extracting Complete Response:- `(?s)(^.)` OR `vars.put("CompleteResponse", prev.getResponseDataAsString());`
- 9) E.g. of Extracting Response (Status) Code:- `(\d+)` OR `vars.put("ResponseCode", prev.getResponseCode());`
- 10) E.g. of Extracting Response Message:- `(?s)(^.)` OR `vars.put("ResponseMsg", prev.getResponseMessage());`
- 11) E.g. of Extracting a Value from Response Header:- `X-Vcap-Request-Id: (.+)` OR `X-Vcap-Request-Id: (.+?)\n`
- 12) E.g. of Extracting Complete Headers:- `(?s)(^.)` OR `vars.put("CompleteResponseHeaders", prev.getResponseHeaders());`
- 13) E.g. of Picking the Last Dynamic Value (or Selection):- `__V(c_Pet_${c_Pet_matchNr})`

