

# IMPLEMENTATION OF HTTP SOCKET :

## *BUG SQUASHERS*

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AIM:

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*To write a python  
program to implement HTTP  
socket.*

# PROCEDURE-HTTP HEAD REQUEST:

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Procedure:

HTTP HEAD REQUEST:

Step -1: Import socket module.

Step -2: A socket s is created in with as a flow control statement “with socket.socket(socket.AF\_INET, socket.SOCK\_STREAM) as s:” in which HEAD request is performed.

Step -3: Using the socket created connect with the resource URL with the port number 80.

Step -4: A Head request with HEAD command followed by the URL is sent by the HTTP 1.1 protocol in which the connections are persistent by default.

Step -5: The data received using recv() by the HTTP socket is printed ,until the return value from the URL is a empty string.

# PROCEDURE-HTTP GET REQUEST:

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## PROCEDURE:

### HTTP GET REQUEST:

Step -1: Import socket module.

Step -2: A socket s is created in with as a flow control statement “with socket.socket(socket.AF\_INET, socket.SOCK\_STREAM) as s:” in which GET request is performed.

Step -3: Using the socket created connect with the resource URL with the port number 80.

Step -4: A GET request to read the home page of the URL is sent by the HTTP 1.1 protocol in which the connections are persistent by default. Hence the connection is sent as : close header.

Step -5: While loop process the data received. If there is no error the bytes are received. If no data is received the loop gets break.

Step -6: Then decode the bytes received and print the data.

# PROGRAM-HTTP HEAD REQUEST:

1818128\_HTTP HEAD REQUEST.py - C:/Users/Shanthi Ponnusamy/AppData/Local/Programs/Python/Python38-32/1818128

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```
# HTTP HEAD REQUEST:
```

```
# IMPORT THE SOCKET MODULE
```

```
import socket
```

```
# HTTP SOCKET S IS CREATED WITH SOME OPERATIONS TO BE PERFORMED
```

```
with socket.socket(socket.AF_INET, socket.SOCK_STREAM) as s:
```

```
    # USING SOCKET CONNECT TO THE WEBSITE WITH PORT NO 80
```

```
    s.connect(("gct.ac.in", 80))
```

```
    # SENDING THE HEAD REQUEST TO GCT.AC.IN
```

```
    s.sendall(b"HEAD / HTTP/1.1\r\nHost: gct.ac.in\r\nAccept: text/html\r\n\r\n")
```

```
    # PRINT THE INFORMATION OBTAINED FROM THE HTTP SOCKET
```

```
    print(str(s.recv(1024), 'utf-8'))
```



# PROGRAM-HTTP GET REQUEST:

```
1818128_HTTP GET REQUEST.py - C:/Users/Shanthi Ponnusamy/AppData/Local/Programs/Python/Python38-32/1818128_HTTP GET REQUEST.py (3.8.5)
File Edit Format Run Options Window Help
# HTTP GET REQUEST:

# IMPORT THE SOCKET MODULE
import socket

# HTTP SOCKET S IS CREATED WITH SOME OPERATIONS TO BE PERFORMED
with socket.socket(socket.AF_INET, socket.SOCK_STREAM) as s:
    # USING SOCKET CONNECT TO THE WEBSITE WITH PORT NO 80
    s.connect(("gct.ac.in" , 80))
    # READS THE HOME PAGE OF THE WEBSITE USING GET REQUEST
    s.sendall(b"GET / HTTP/1.1\r\nHost: gct.ac.in\r\nAccept: text/html\r\nConnection: close\r\n\r\n")

    while True: # WHILE LOOP PROCESS THE RECEIVED DATA

        # IF THERE IS NO ERROR THEN RECV RETURNS THE BYTES RECEIVED
        data = s.recv(1024)

        if not data: # IF NO DATA RECEIVED THEN BREAK THE LOOP
            break

        # DECODE AND PRINT THE DATA RECEIVED
        print(data.decode())
```

# OUTPUT-HTTP HEAD REQUEST:

```
File Edit Shell Debug Options Window Help
Python 3.8.5 (tags/v3.8.5:580fbb0, Jul 20 2020, 15:43:08) [MSC v.1926 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/Shanthi Ponnusamy/AppData/Local/Programs/Python/Python38-32/1818128_HTTP HEAD REQUEST.py
HTTP/1.1 200 OK
Date: Sun, 01 Nov 2020 15:38:11 GMT
Server: Apache/2.4.18 (Ubuntu)
Expires: Sun, 19 Nov 1978 05:00:00 GMT
Cache-Control: no-cache, must-revalidate
X-Content-Type-Options: nosniff
Content-Language: en
X-Frame-Options: SAMEORIGIN
Set-Cookie: textsize=76; expires=Mon, 01-Nov-2021 15:38:12 GMT; Max-Age=31536000; path=/
X-Robots-Tag: noimageindex
X-Generator: Drupal 7 (http://drupal.org)
Set-Cookie: SESS9674bb1c8aa6ce1255f6ce410f71f022=VQbdDvOq_MHfaHxBmU24Nii98sdUdt3j8QpOJfjmx6M; expires=Tue, 24-Nov-2020 19:11:35 GMT; Max-Age=2000000; path=/; domain=.gct.ac.in; HttpOnly
Content-Type: text/html; charset=utf-8
```

```
>>>
```



# OUTPUT-HTTP GET REQUEST:

```
File Edit Shell Debug Options Window Help
Python 3.8.5 (tags/v3.8.5:580fbb0, Jul 20 2020, 15:43:08) [MSC v.1926 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/Shanthi Ponnusamy/AppData/Local/Programs/Python/Python38-32/1818128_HTTP GET REQUEST.py
HTTP/1.1 200 OK
Date: Sun, 01 Nov 2020 15:41:43 GMT
Server: Apache/2.4.18 (Ubuntu)
Expires: Sun, 19 Nov 1978 05:00:00 GMT
Cache-Control: no-cache, must-revalidate
X-Content-Type-Options: nosniff
Content-Language: en
X-Frame-Options: SAMEORIGIN
Set-Cookie: textsize=76; expires=Mon, 01-Nov-2021 15:41:45 GMT; Max-Age=31536000; path=/
X-Robots-Tag: noimageindex
X-Generator: Drupal 7 (http://drupal.org)
Set-Cookie: SESS9674bb1c8aa6ce1255f6ce410f71f022=kLbBU63N1M_-ifiXx_L80k8tpQ5yaqFeN0Nt7Zd5xOo; expires=Tue, 24-Nov-2020 19:15:07 GMT;
Max-Age=2000000; path=/; domain=.gct.ac.in; HttpOnly
Vary: Accept-Encoding
Connection: close
Transfer-Encoding: chunked
Content-Type: text/html; charset=utf-8

24ca2
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML+RDFa 1.0//EN"
"http://www.w3.org/MarkUp/DTD/xhtml-rdfa-1.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" version="XHTML+RDFa 1.0" dir="ltr"
xmlns:content="http://purl.org/rss/1.0/modules/content/"
xmlns:dc="http://purl.org/dc/terms/"
xmlns
:foaf="http://xmlns.com/foaf/0.1/"
xmlns:og="http://ogp.me/ns#"
xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
xmlns:sioc="http://rdfs.org/sioc/ns#"
xmlns:sioc="http://rdfs.org/sioc/types#"

```



```
xmlns:skos="http://www.w3.org/2004/02/skos/core#"
xmlns:xsd="http://www.w3.org/2001/XMLSchema#">

<head profile="http://www.w3.org/1999/xhtml/vocab">
  <meta http-equiv="content-type" content="text/html; charset=utf-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<meta name="Generator" content="Drupal 7 (http://drupal.org)" />
<meta name="robots" content="noimageindex" />
<link rel="shortcut icon" href="http://gct.ac.in/sites/gct.ac.in/files/favicon_0.ico" type="image/vnd.microsoft.icon" />

  <title>Administration | Government College Of Technology</title>

  <style type="text/css" media="all">
@import url("http://gct.ac.in/modules/system/system.base.css?qq5akk");
@import url("http://gct.ac.in/modules/system/system.menus.css?qq5akk");
@import url("http://gct.ac.in/modules/system/system.messages.css?qq5akk");
@import url("http://gct.ac.in/modules/system/system.theme.css?qq5akk");
</style>
<style type="text/css" media="all">
@import url("http://gct.ac.in/sites/all/modules/views_slideshow/views_slideshow.css?qq5akk");
</style>
<style type="text/css" media="all">
@import url("http://gct.ac.in/sites/all/modules/calendar/css/calendar_multiday.css?qq5akk");
@import url("http://gct.ac.in/modules/comment/comment.css?qq5akk");
@import url("http://gct.ac.in/sites/all/modules/date/date_api/date.css?qq5akk");
@import url("http://gct.ac.in/sites/all/modules/date/date_popup/themes/datepicker.1.7.css?qq5akk");
@import url("http://gct.ac.in/sites/all/modules/date/date_repeat_field/date_repeat_field.css?qq5akk");
@import url("http://gct.ac.in/modules/field/theme/field.css?qq5akk");
@import url("http://gct.ac.in/modules/node/node.css?qq5akk");
@import url("http://gct.ac.in/modules/search/search.css?qq5akk");
@import url("http://gct.ac.in/modules/user/user.css?qq5akk");
@import url("http://gct.ac.in/modules/forum/forum.css?qq5akk");
```

```
ng-list, .uc-price {
    font-family: Arbutus Slab, 'Helvetica Neue', Helvetica, Arial, sans-serif;
    font-weight: 300;
}

#wap-menu ul.sf-menu li a, .tinynav{
    font-family: Arbutus Slab, 'Helvetica Neue', Helvetica, Arial, sans-serif;
    font-weight: 300;
}

#main_slider{
    font-family: PT Sans, 'Helvetica Neue', Helvetica, Arial, sans-serif;
    font-weight: 300;
}

blockquote, .quote{
    font-family: PT Sans, Georgia, "Times New Roman", Times, serif;
    font-weight: 300;
}

/* Body background scheme goes here -----*/
body{
    background: url(/sites/gct.ac.in/themes/icompany/img/bg/stripe_default.png) repeat;
}

/** custom typo */
body{
    font-size: 13px;
}

.sf-menu a{
    font-size: 12px;
```



```
</div>
<div id="views_slideshow_cycle_div_succession_list_slider-block_1_7" class="views-slideshow-cycle-main-frame-row views_slideshow_cycl
e_slide views_slideshow_slide views-row-8 views_slideshow_cycle_hidden views-row-even" >
  <div class="views-slideshow-cycle-main-frame-row-item views-row views-row-0 views-row-odd">

    <div class="views-field views-field-picture">      <div class="field-content"><a href="/users/hegde">
</a></div> </div></div>
</div>
<div id="views_slideshow_cycle_div_succession_list_slider-block_1_8" class="views-slideshow-cycle-main-frame-row views_slideshow_cycl
e_slide views_slideshow_slide views-row-9 views_slideshow_cycle_hidden views-row-odd" >
  <div class="views-slideshow-cycle-main-frame-row-item views-row views-row-0 views-row-odd">

    <div class="views-field views-field-picture">      <div class="field-content"><a href="/users/nularaj-joseph"></a></div> </div></div>
</div>
<div id="views_slideshow_cycle_div_succession_list_slider-block_1_9" class="views-slideshow-cycle-main-frame-row views_slideshow_cycl
e_slide views_slideshow_slide views-row-10 views_slideshow_cycle_hidden views-row-even" >
  <div class="views-slideshow-cycle-main-frame-row-item views-row views-row-0 views-row-odd">

    <div class="views-field views-field-picture">      <div class="field-content"><a href="/users/arthur"><img typeof="foaf:Image" sr
c="http://gct.ac.in/sites/gct.ac.in/files/styles/carousel_principal/public/pictures/picture-119-1354102763.jpg?itok=YjgbOHsC" width="
135" height="160" alt="ARTHUR&#039;s picture" /></a></div> </div></div>
</div>
<div id="views_slideshow_cycle_div_succession_list_slider-block_1_10" class="views-slideshow-cycle-main-frame-row v
iews_slideshow_cycle_slide views_slideshow_slide views-row-11 views_slideshow_cycle_hidden views-row-odd" >
  <div class="views-slideshow-cycle-main-frame-row-item views-row views-row-0 views-row-odd">

    <div class="views-field views-field-picture">      <div class="field-content"><a href="/users/samuel"><img typeof="foaf:Image" sr
c="http://gct.ac.in/sites/gct.ac.in/files/styles/carousel_principal/public/pictures/picture-120-1354102954.jpg?itok=pCN92hLF" width="
135" height="160" alt="SAMUEL&#039;s picture" /></a></div> </div></div>
</div>
<div id="views_slideshow_cycle_div_succession_list_slider-block_1_11" class="views-slideshow-cycle-main-frame-row views_slideshow_cyc
le_slide views_slideshow_slide views-row-12 views_slideshow_cycle_hidden views-row-even" >
```



```
href="/contact"
target='_self'
class='feedback_simple-right feedback_simple'
style='top: 75%; height: 100px; width: 35px;*>
  <img
    alt='Feedback'
    src='/sites/all/modules/feedback_simple/feedback_simple.gif'
    height='100'
    width='35' />
</a>
</div>
</div>
<script type="text/javascript" src="http://gct.ac.in/sites/all/modules/copyright/copyright.js?gg5akk"></script>
<script type="text/javascript" src="http://gct.ac.in/sites/gct.ac.in/themes/icompany/js/bootstrap.js?gg5akk"></script>

<!-- Bootstrap scripts -->
<script type="text/javascript">
(function ($) {
  $(document).ready(function () {
    $('[rel=tooltip]').toolti
p();
    $('.carousel').carousel()
    $('[rel=popover]').popover();
  });
})(jQuery);
</script>

</body>
</html>
0
```



# RESULT:

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*Thus the python program to implement HTTP socket was executed successfully.*