Selenium Webdriver PageObject Design Pattern

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THE PAGE OBJECT DESIGN PATTERN





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about

HUBzero® is a powerful, open source software platform for creating dynamic web sites that support scientific research and educational activities

habricentral.org

Resources for the Study of the Human-Animal Bond.

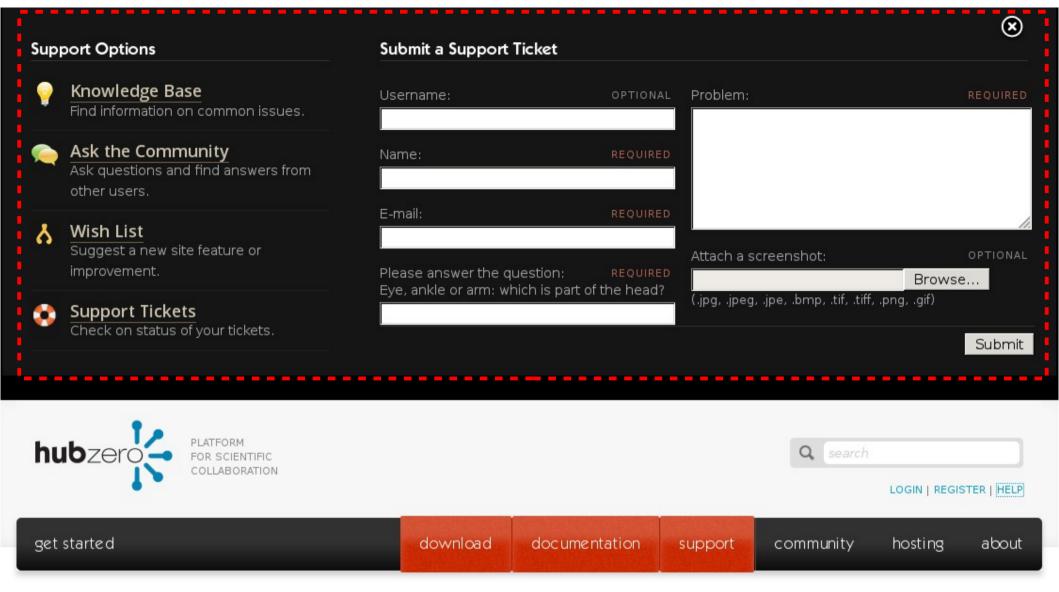


HABRI Central exists to advance the interdisciplinary understanding and study of human-animal interaction.

see more hubs

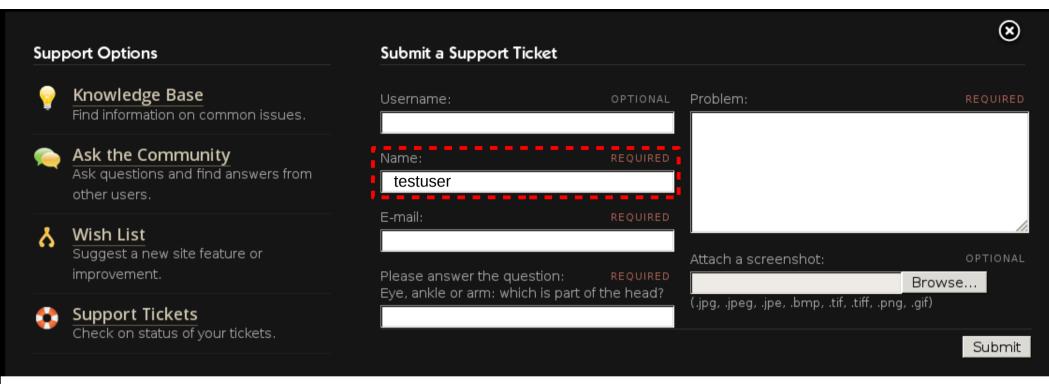
GET STARTED

DOWNLOAD



HUBzero® is a powerful, open source software platform for creating dynamic web sites that support scientific research and educational activities



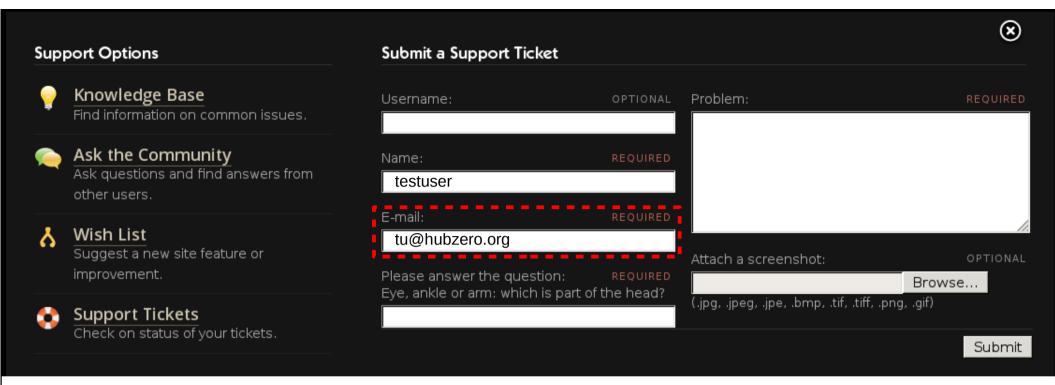


Writing to a Text Input:

- 1. Find the element
- 2. Clear the element
- 3. Send keys to the element

```
<label for="trName">
    Name:
    <span class="required">required</span>
    <input id="trName" type="text" value=""
    name="reporter[name]">
    </label>
```

```
e = browser.find_element(by=BY.CSS, value="input[id='trName']")
e.clear()
e.send_keys("testuser")
...
```

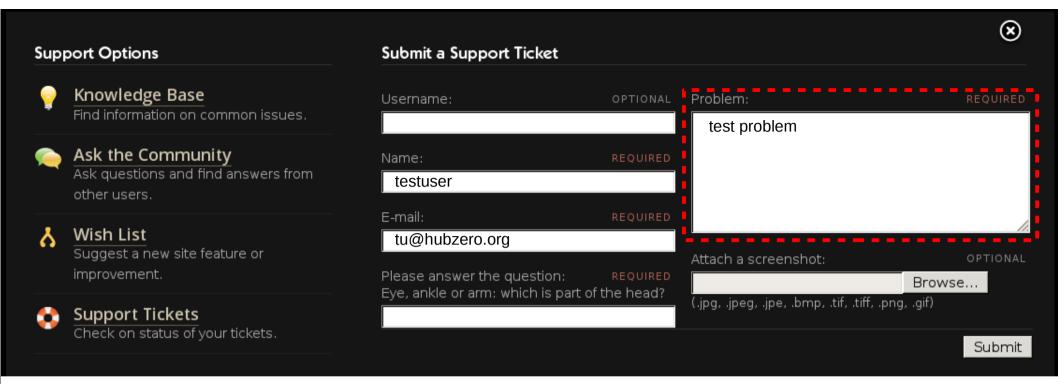


Writing to a Text Input:

- 1. Find the element
- 2. Clear the element
- 3. Send keys to the element

```
<label for="trEmail">
        E-mail:
        <span class="required">required</span>
        <input id="trEmail" type="text" value=""
            name="reporter[email]">
        </label>
```

```
e = browser.find_element(by=BY.CSS, value="input[id='trEmail']")
e.clear()
e.send_keys("tu@hubzero.org")
...
```

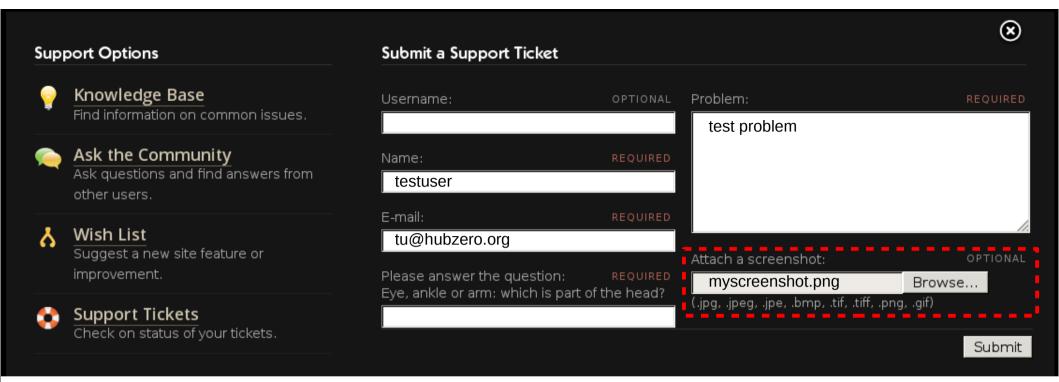


Writing to a Text Input:

- 1. Find the element
- 2. Clear the element
- 3. Send keys to the element

```
<label for="trProblem">
    Problem:
    <span class="required">required</span>
    <textarea id="trProblem"
        name="problem[long]"> </textarea>
    </label>
```

```
e = browser.find_element(by=BY.CSS, value="textarea[id='trProblem']")
e.clear()
e.send_keys("test problem")
...
```

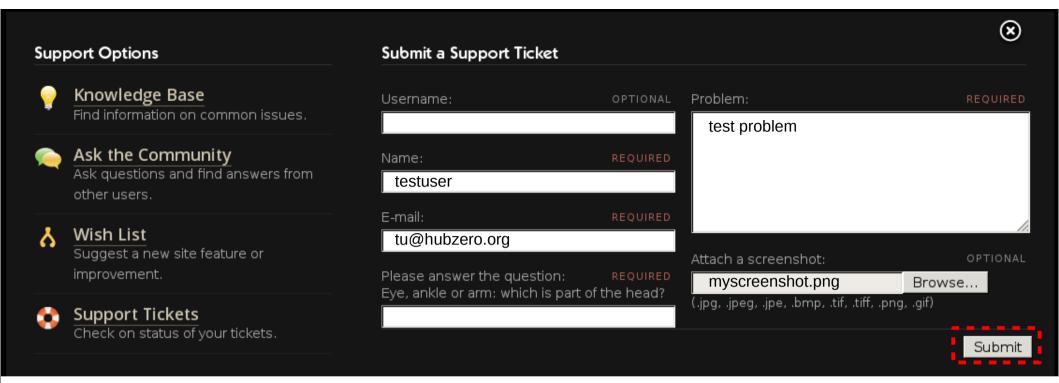


Uploading a file:

- 1. Find the element
- 2. Send file path to element

```
<label for="trUpload">
   Attach a screenshot:
      <span class="optional">optional</span>
      <input id="trUpload" type="file"
            name="upload">
      </label>
```

```
e = browser.find_element(by=BY.CSS,value="input[id='trUpload']")
e.send_keys("$HOME/myscreenshot.png")
...
```



Pushing a button:

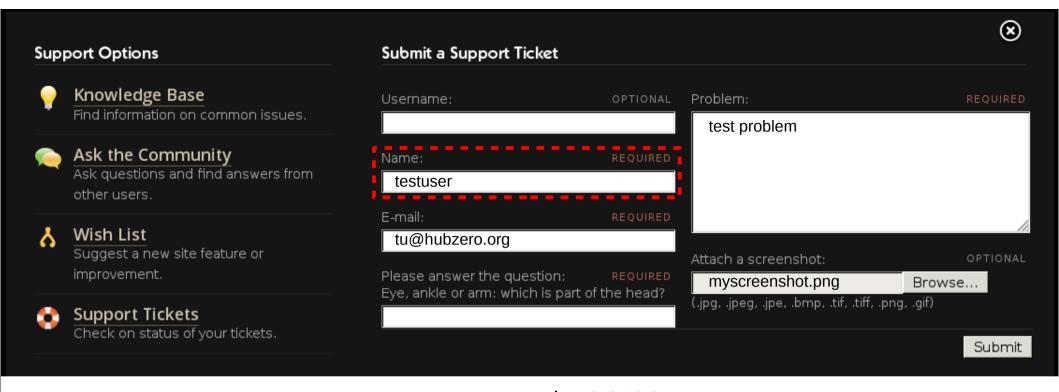
- 1. Find the element
- 2. Call the element's "click()" method

```
<div class="submit">
  <input id="send-form" type="submit"
    value="Submit">
  </div>
```

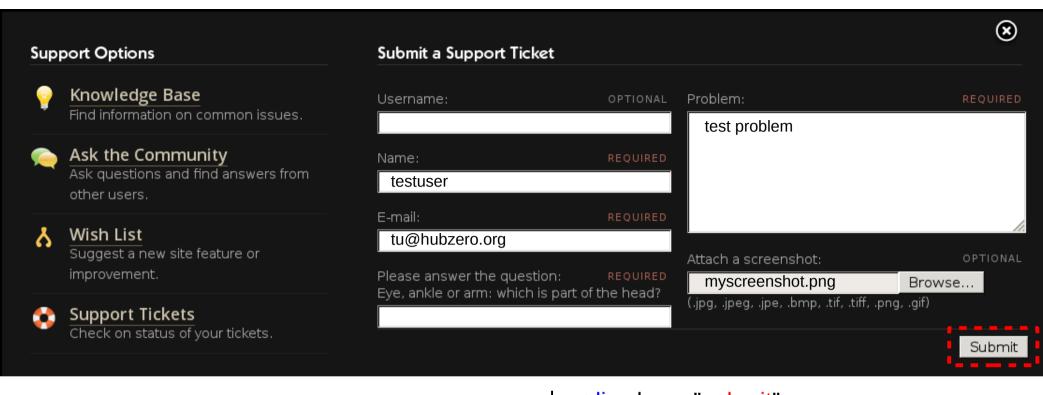
```
e = browser.find_element(by=BY.CSS,value="input[id='send-form']")
e.click()
...
```

```
# File a Support Ticket
# Populate the Name field
e = browser.find element(by=BY.CSS, value="input[id='trName']")
e.clear()
e.send_keys("testuser")
# Populate the Email field
e = browser.find element(by=BY.CSS, value="input[id='trEmail']")
e.clear()
e.send_keys("tu@hubzero.org")
# Populate the Problem field
e = browser.find_element(by=BY.CSS, value="textarea[id='trProblem']")
e.clear()
e.send keys("test problem")
# Populate the Upload field
e = browser.find element(by=BY.CSS,value="input[id='trUpload']")
e.send keys("$HOME/myscreenshot.png")
# Click the Submit button
e = browser.find_element(by=BY.CSS,value="input[id='send-form']")
e.click()
. . .
```

```
# File a Support Ticket
# Populate the Name field
e = browser.find element(by=BY.CSS, value="input[id='trName']")
                                                                        Text Input
e.clear()
e.send_keys("testuser")
# Populate the Email field
e = browser.find element(by=BY.CSS, value="input[id='trEmail']")
                                                                        Text Input
e.clear()
e.send_keys("tu@hubzero.org")
# Populate the Problem field
e = browser.find_element(by=BY.CSS, value="textarea[id='trProblem']")
                                                                        Text Input
e.clear()
e.send_keys("test problem")
# Populate the Upload field
                                                                        Text Input
e = browser.find element(by=BY.CSS,value="input[id='trUpload']")
e.send keys("$HOME/myscreenshot.png")
# Click the Submit button
                                                                           Button
e = browser.find_element(by=BY.CSS,value="input[id='send-form']")
e.click()
```



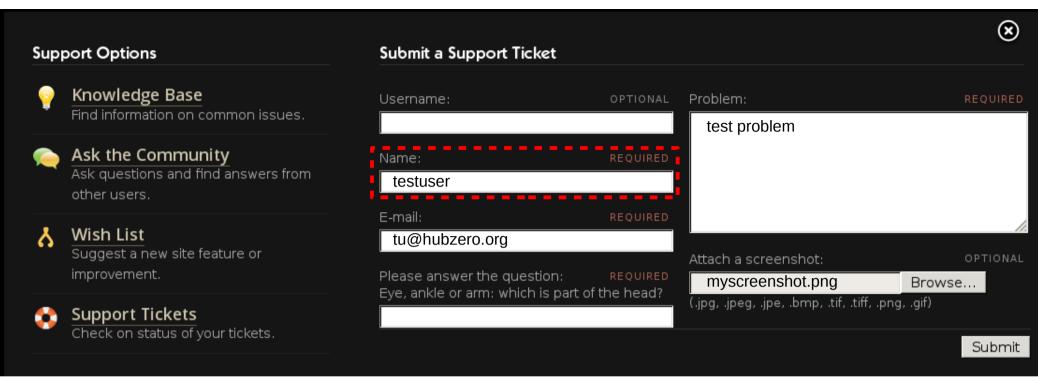
```
<a href="label-for="trName">
class Text(BasePageWidget):
                                                         Name:
  def init (self, locator):
                                                         <span class="required">required</span>
                                                         <input id="trName" type="text" value=""</pre>
  def value(self, text):
                                                           name="reporter[name]">
     e = self.find element(self.locator)
                                                      </label>
     e.clear()
     e.send keys(text)
  e = browser.find element(by=BY.CSS,
                                                        name = Text("input[id='trName']")
        value="input[id='trName']")
                                                        name.value('testuser')
  e.clear()
  e.send_keys("testuser")
```



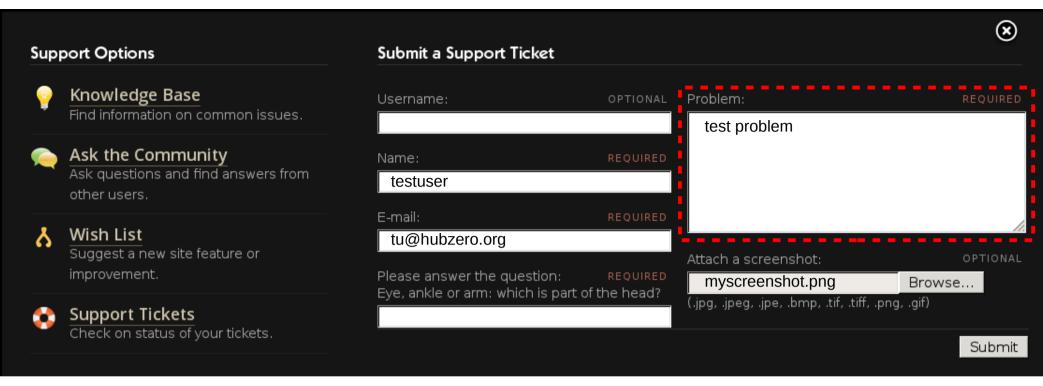
```
e = browser.find_element( by=BY.CSS, value="input[id='send-form']")
e.click()
...

submit = Text("input[id='send-form']")
submit.click()
...
```

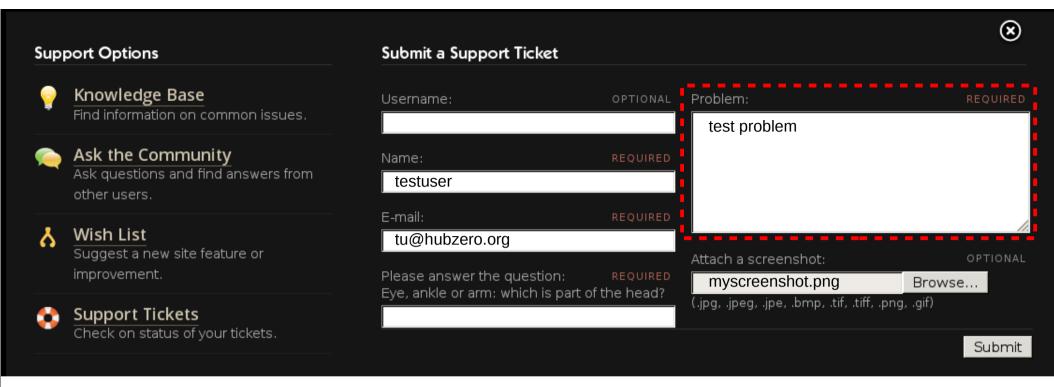
```
# File a Support Ticket
# Populate the Name field
name = Text("input[id='trName']")
                                                                         Text Input
name.value("testuser")
# Populate the Email field
email = Text("input[id='trEmail']")
                                                                         Text Input
email.value("tu@hubzero.org")
# Populate the Problem field
problem = Text("textarea[id='trProblem']")
                                                                         Text Input
problem.value("test problem")
# Populate the Upload field
                                                                         Text Input
upload = Text("input[id='trUpload']")
upload.value("$HOME/myscreenshot.png")
# Click the Submit button
                                                                           Button
submit = Button("input[id='send-form']")
submit.click()
```



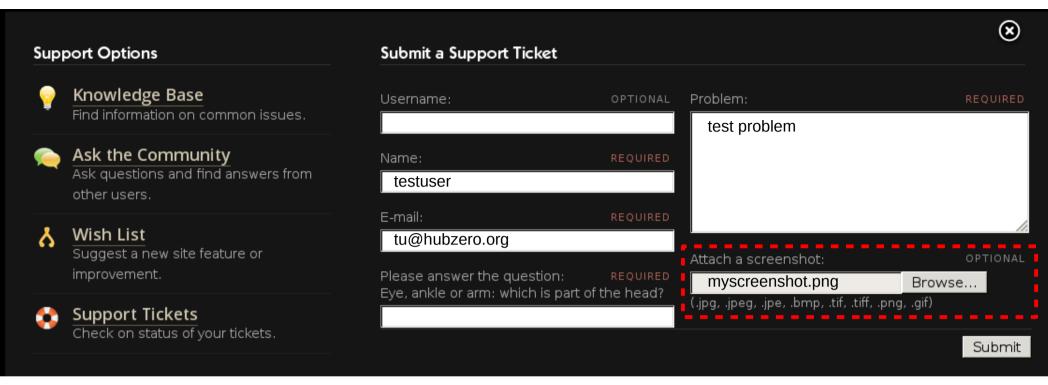
```
<a href="label-for="trName">
class Text(BasePageWidget):
                                                         Name:
  def init (self, locator):
                                                         <span class="required">required</span>
                                                         <input id="trName" type="text" value=""</pre>
  def value(self):
                                                           name="reporter[name]">
     e = self.find element(self.locator)
                                                       </label>
     return e.get attribute('value')
  e = browser.find element(by=BY.CSS,
                                                        name = Text("input[id='trName']")
        value="input[id='trName']")
                                                        x = name.value()
  e.get attribute('value')
```



```
<a href="label"><|abel for="trProblem"></a>
class Text(BasePageWidget):
                                                          Problem:
  def init (self, locator):
                                                          <span class="required">required</span>
                                                          <textarea id="trProblem"
  def value(self):
                                                            name="problem[long]"> </textarea>
     e = self.find element(self.locator)
                                                       </label>
    return e.get attribute('value')
  e = browser.find element(by=BY.CSS,
                                                         problem = Text("input[id='trProblem']")
        value="input[id='trProblem']")
                                                         x = problem.value()
  e.text
```



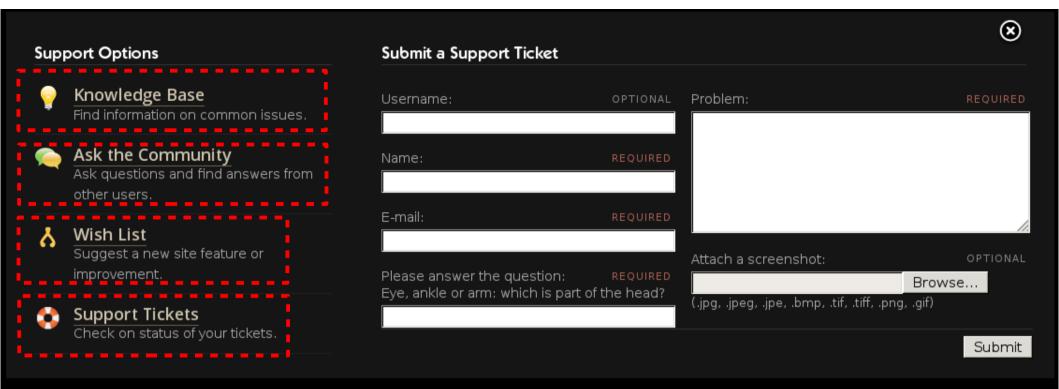
```
<a href="label"><|abel for="trProblem"></a>
class TextArea(BasePageWidget):
                                                          Problem:
  def init (self, locator):
                                                          <span class="required">required</span>
                                                          <textarea id="trProblem"
  def value(self):
                                                            name="problem[long]"> </textarea>
     e = self.find_element(self.locator)
                                                       </label>
     return e text
  e = browser.find element(by=BY.CSS,
                                                         problem = Text("input[id='trProblem']")
        value="input[id='trProblem']")
                                                         x = problem.value()
  e.text
```



```
e = browser.find_element( by=BY.CSS, value="input[id='trUpload']")
e.send_keys('$HOME/myscreenshot.png')
...

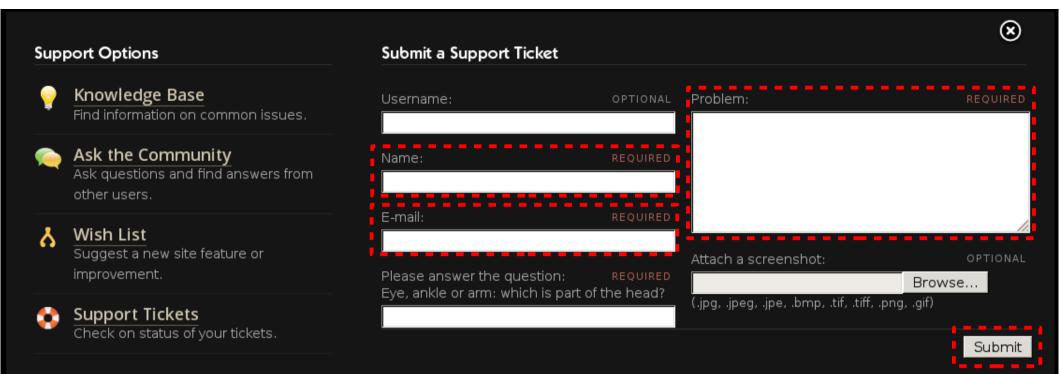
...
```

```
# File a Support Ticket
# Populate the Name field
name = Text("input[id='trName']")
                                                                        Text Input
name.value("testuser")
# Populate the Email field
email = Text("input[id='trEmail']")
                                                                        Text Input
email.value("tu@hubzero.org")
# Populate the Problem field
problem = TextArea("textarea[id='trProblem']")
                                                                         TextArea
problem.value("test problem")
# Populate the Upload field
                                                                           Upload
upload = Upload("input[id='trUpload']")
upload.value("$HOME/myscreenshot.png")
# Click the Submit button
                                                                           Button
submit = Button("input[id='send-form']")
submit.click()
```

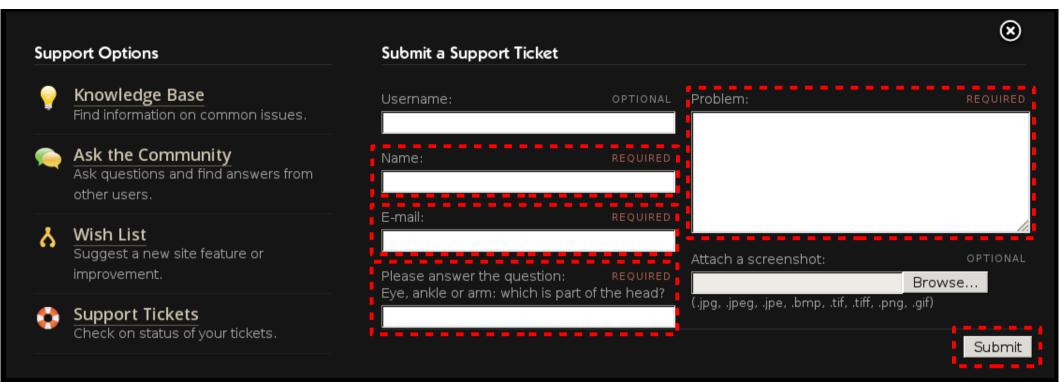


Go to Support Webpages

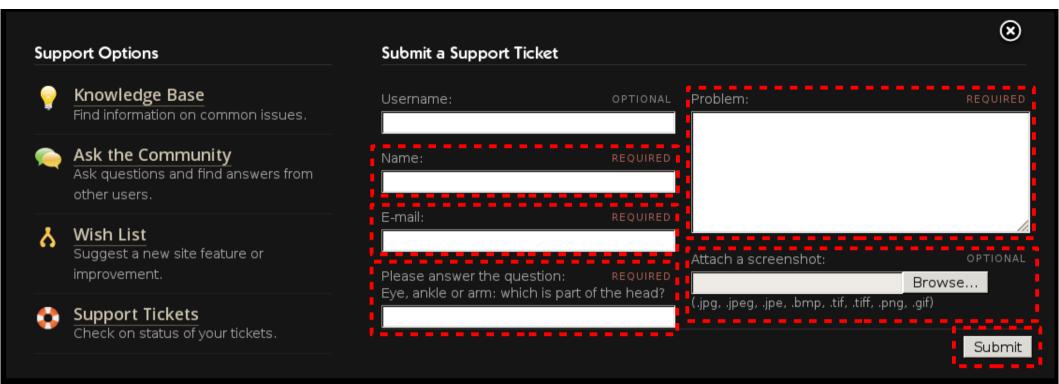
- * Knowledge Base
- * Questions/Answers
- * Wish List
- * Support Tickets



Submit New Ticket * Name, Email, Problem



Submit New Ticket * Name, Email, Problem, Captcha



Submit New Ticket * Name, Email, Problem, Captcha, Upload

```
# File a Support Ticket
# Populate the Name field
e = browser.find element(by=BY.CSS, value="input[id='trName']")
e.clear()
e.send keys("testuser")
# Populate the Email field
e = browser.find element(by=BY.CSS, value="input[id='trEmail']")
e.clear()
e.send keys("tu@hubzero.org")
# Populate the Problem field
e = browser.find element(by=BY.CSS, value="textarea[id='trProblem']")
e.clear()
e.send keys("test problem")
# Populate the Upload field
e = browser.find element(by=BY.CSS,value="input[id='trUpload']")
e.send keys("$HOME/myscreenshot.png")
# Click the Submit button
e = browser.find_element(by=BY.CSS,value="input[id='send-form']")
e.click()
```

```
# File a Support Ticket
# Populate the Name field
name = Text("input[id='trName']")
name.value("testuser")
# Populate the Email field
email = Text("input[id='trEmail']")
email.value("tu@hubzero.org")
# Populate the Problem field
problem = TextArea("textarea[id='trProblem']")
problem.value("test problem")
# Populate the Upload field
upload = Upload("input[id='trUpload']")
upload.value("$HOME/myscreenshot.png")
# Click the Submit button
submit = Button("input[id='send-form']")
submit.click()
```

```
# File a Support Ticket
# Populate the Support Ticket
po = TroubleReportForm("#troublereport")
data = {
  'username' : 'hctest1',
  'name' : 'hctest1 hctest1',
  'email' : 'hctest1@hubzero.org',
  'problem' : 'test problem text',
  'captcha' : True,
'upload' : '/home/hctest1/myscreenshot.png',
po.submit_ticket(data)
```

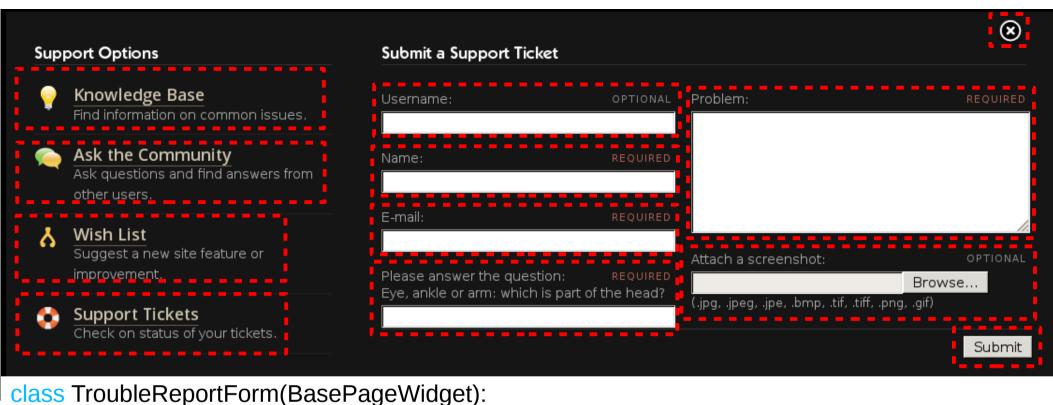
```
# File a Support Ticket

# Populate the Support Ticket

po = TroubleReportForm("#troublereport")

data = {
    'name' : 'hctest1 hctest1',
    'email' : 'hctest1@hubzero.org',
    'problem' : 'test problem text',
}

po.submit_ticket(data)
```



```
def __init__(self):

...

self.username = Text(self,'username')

self.captcha = Captcha(self,'captcha')

self.problem = Text(self,'problem')

self.upload = Upload(self,'upload')

self.submit = Button(self,'submit')

...

def submit_ticket(self,data):

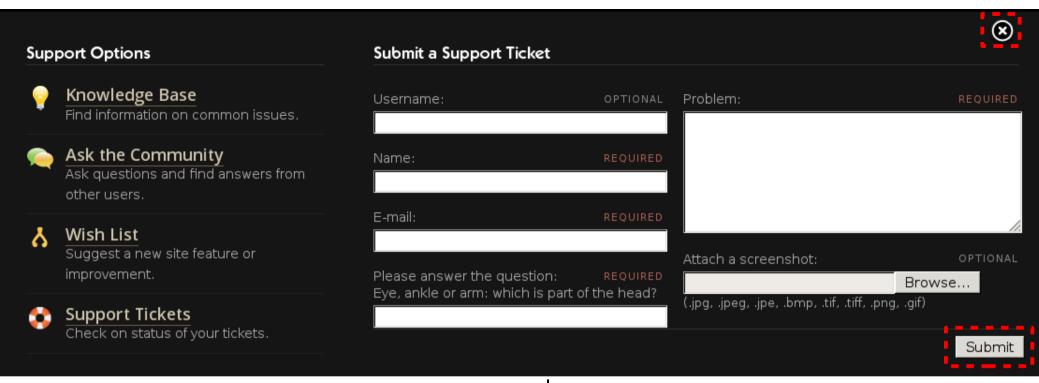
...

def open(self):
...
```

def close(self):

Page Description

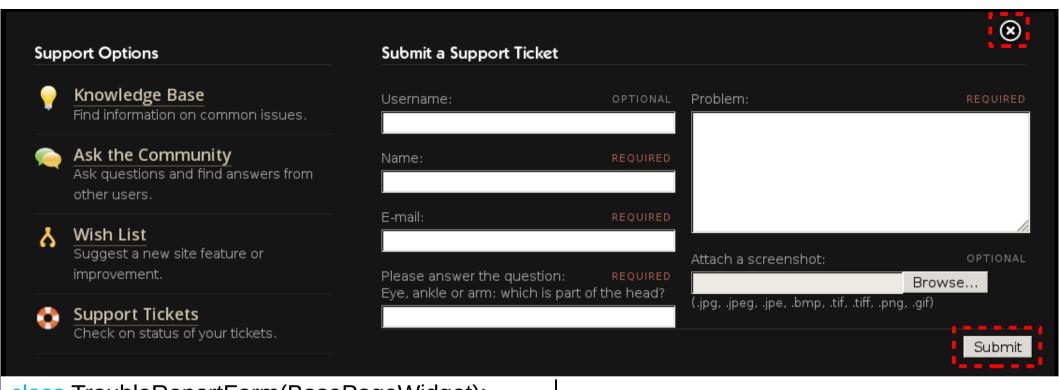
Page Services



```
class TroubleReportForm(BasePageWidget):
    def __init__(self):
        ...
        self.username = Text(self,'username')
        self.captcha = Captcha(self,'captcha')
        self.problem = Text(self,'problem')
        self.upload = Upload(self,'upload')
        self.submit = Button(self,'submit')
        ...
    def submit_ticket(self,data):
        ...
    def open(self):
        ...
    def close(self):
```

open and close the need help pane

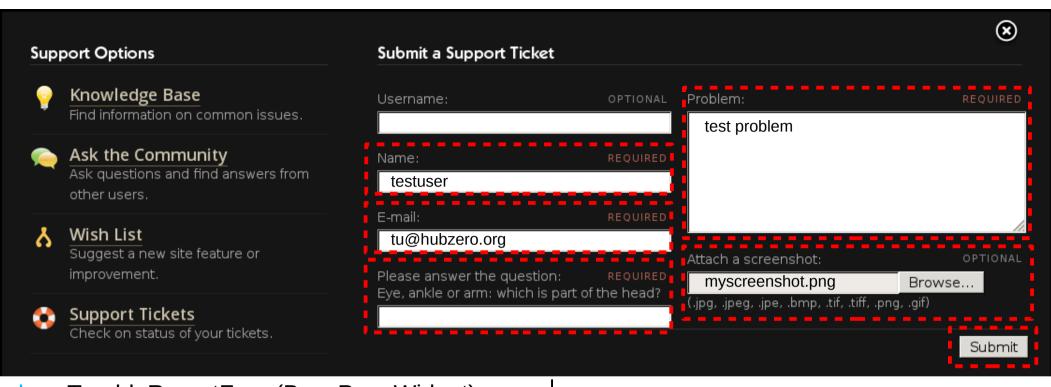
po = TroubleReportForm()
po.open()
po.close()



```
class TroubleReportForm(BasePageWidget):
    def __init__(self):
        ...
        self.username = Text(self,'username')
        self.captcha = Captcha(self,'captcha')
        self.problem = Text(self,'problem')
        self.upload = Upload(self,'upload')
        self.submit = Button(self,'submit')
        ...
    def submit_ticket(self,data):
        ...
    def open(self):
        ...
    def close(self):
```

submit a blank ticket

```
po = TroubleReportForm()
po.open()
data = {}
po.submit_ticket(data)
```

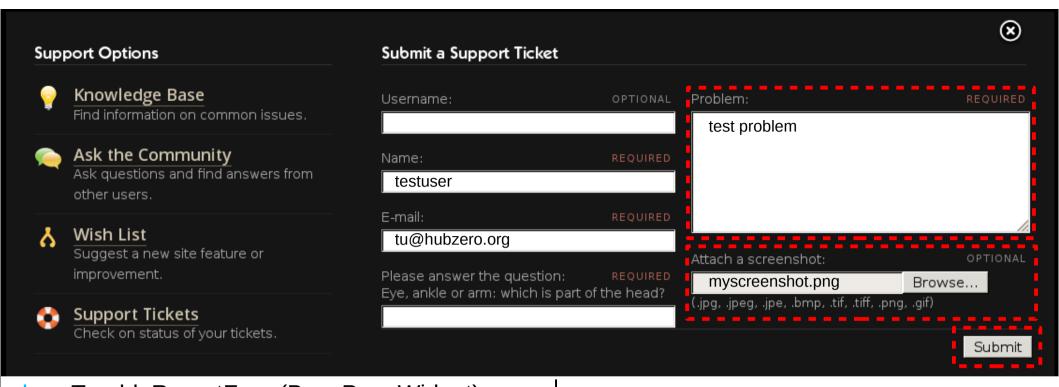


```
class TroubleReportForm(BasePageWidget):
    def __init__(self):
        ...
        self.username = Text(self,'username')
        self.captcha = Captcha(self,'captcha')
        self.problem = Text(self,'problem')
        self.upload = Upload(self,'upload')
        self.submit = Button(self,'submit')
        ...
    def submit_ticket(self,data):
        ...
    def open(self):
        ...
    def close(self):
```

```
# upload a file, then submit the ticket

po = TroubleReportForm()
po.open()
data = {
    'name' : 'testuser',
    'email' : 'tu@hubzero.org',
    'problem' : 'test problem',
    'upload' : 'myscreenshot.png',
}
po.submit_ticket(data)
```

fill in the name, email, problem,



```
class TroubleReportForm(BasePageWidget):
    def __init__(self):
        ...
        self.username = Text(self,'username')
        self.captcha = Captcha(self,'captcha')
        self.problem = Text(self,'problem')
        self.upload = Upload(self,'upload')
        self.submit = Button(self,'submit')
        ...
    def submit_ticket(self,data):
        ...
    def open(self):
        ...
    def close(self):
```

```
# fill in problem, upload file,
# then submit ticket

po = Login()
po.login_as('testuser','tupass')

po = TroubleReportForm()
po.open()
data = {
    'problem' : 'test problem',
    'upload' : 'myscreenshot.png',
}
po.submit_ticket(data)
```

login to the website,





LOGIN | REGISTER | HELP

get started documentation support community hosting about

HOME > LOGIN

Login

Log in with your Hub account.

Username:		
Forgot your Username?		
Password:		
Forgot your Password?		
☐ Remember Me		

No account?

Register. It's free!

Is this really free?

Yes! Use of HUBzero resources and tools is *free* for registered users. There are no hidden costs or fees.

Why is registration required for parts of HUBzero?

Login

Log in with your Hub account.

Username:		
Forgot your Username?		
Password:		
Forgot your Password?		
☐ Remember Me		

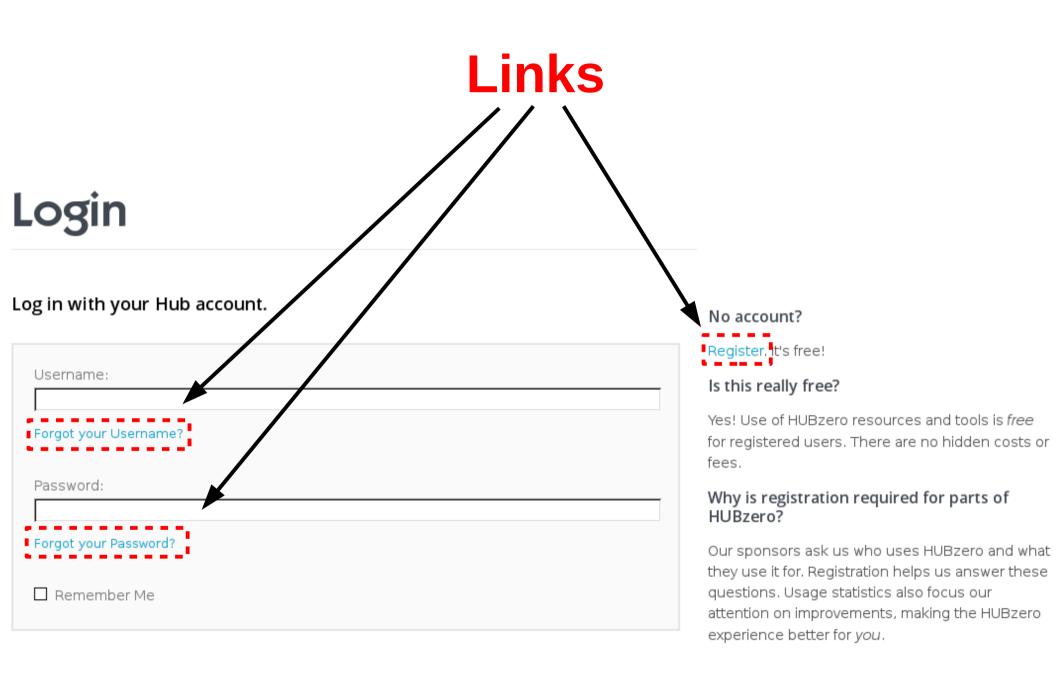
No account?

Register. It's free!

Is this really free?

Yes! Use of HUBzero resources and tools is *free* for registered users. There are no hidden costs or fees.

Why is registration required for parts of HUBzero?



Login

Text Inputs Login Log in with your Hub account. Username: Forgot your Username? Password: Forgot your Password? ☐ Remember Me

No account?

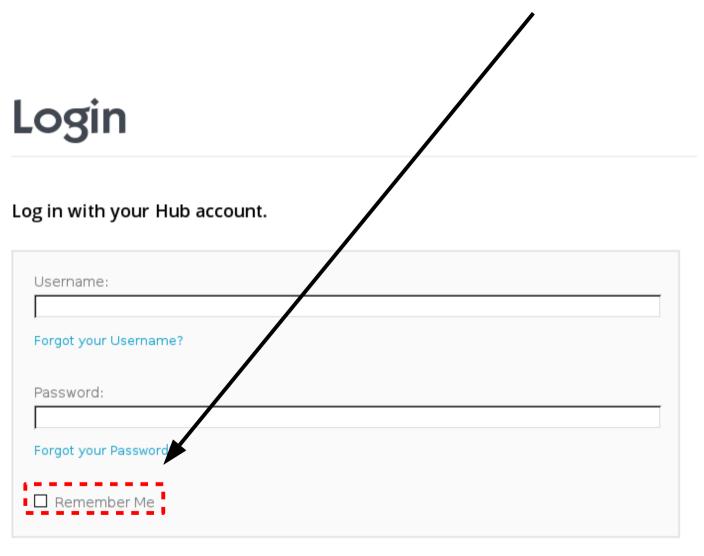
Register. It's free!

Is this really free?

Yes! Use of HUBzero resources and tools is *free* for registered users. There are no hidden costs or fees.

Why is registration required for parts of HUBzero?

Checkbox



No account?

Register. It's free!

Is this really free?

Yes! Use of HUBzero resources and tools is *free* for registered users. There are no hidden costs or fees.

Why is registration required for parts of HUBzero?

Button

Login

Username:

Password:

Forgot your Username?

Forgot your Password?

☐ Remember Me

Log in with your Hub account.

No account?

Register. It's free!

Is this really free?

Yes! Use of HUBzero resources and tools is *free* for registered users. There are no hidden costs or fees.

Why is registration required for parts of HUBzero?

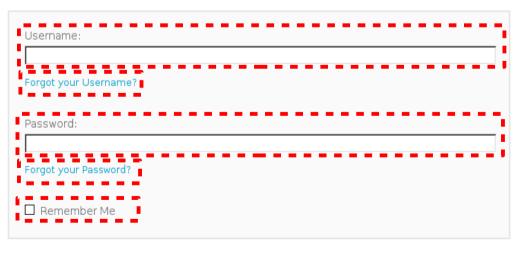
```
class Login(BasePageWidget):
    def __init__(self, locator):
        ...
        self.username = Text(self,'username')
        self.password = Text(self,'password')
        self.remember = Checkbox(self,'remember')
        self.remind = Link(self,'remind')
        self.reset = Link(self,'reset')
        self.register = Link(self,'register')
        self.submit = Button(self,'submit')
```

Page Description

def login_as(self,username,password):
 self.username.value = username
 self.password.value = password
 self.submit.click()

Page Services

Log in with your Hub account.



No account?

Register. It's free!

Is this really free?

Yes! Use of HUBzero resources and tools is *free* for registered users. There are no hidden costs or fees.

Why is registration required for parts of HUBzero?

```
class Login(BasePageWidget):
  def init (self, locator):
     self.username = Text(self,'username')
     self.password = Text(self,'password')
     self.remember = Checkbox(self,'remember')
                   = Link(self,'remind')
     self.remind
                   = Link(self,'reset')
     self.reset
                   = Link(self,'register')
     self.register
     self.submit
                   = Button(self,'submit')
  def login_as(self,username,password):
     self.username.value = username
     self.password.value = password
     self.submit.click()
```

```
po = Login('#hubForm')
po.login_as('testuser','testpassword')
po = Login('#hubForm')
```

```
po = Login('#hubForm')
po.remember.value = True
po.login_as('testuser','testpassword')
```

```
po = Login('#hubForm')
po.remind.click()
```

```
po = Login('#hubForm')
po.username.value = 'testuser'
po.submit.click()
```

Log in with your Hub account.



No account?

Register. It's free!

Is this really free?

Yes! Use of HUBzero resources and tools is *free* for registered users. There are no hidden costs or fees.

Why is registration required for parts of HUBzero?

