**To find no.of buttons and get the button name in a webpage**

element.all(by.tagName('button')).count().then(**function**(btncount){

console.log("Button count is " + btncount)

})

element.all(by.tagName('button')).getText().then(**function**(btntext){

console.log("button name is: " + btntext)

})

**To find no.of links in a webpage:**

element.all(by.tagName('a')).count().then(**function**(linkcount){

console.log("link count is " + linkcount)

})

**Print the dropdown values:**

element.all(by.tagName("option")).each(**function**(itemnames) {

itemnames.getText("value").then(**function**(values){

console.log(values);

})

})

**To select the value directly from drop down:**

element(by.id("userSelect")).sendKeys("Hermoine Granger")

Waits in Protractor:

There are few ways to synchronize the protractor with application under test:

Implicitly Wait

Explicitly Wait

pageLoadTimeout

scriptLoadTimeOut

Sleep [ Try to avoid ]

Implicitly wait: browser.manage().timeouts().implicitlyWait(30000)

Explicitly wait: The explicit wait tells the protractor to wait for certain conditions or the maximum time limit before throwing an "Exception".

For example: if you are waiting for a condition with 60 seconds, if the condition is meth at 4th second then Explicit wait will not wait till 60 seconds.

ExplicitWait does not have any effect on element and element.all, ExplicitWait also called as WebdriverWait.

ExplicitWait by default calls the ExpectedCondition every 500 milliseconds until it returns successfully

browser.wait(conditions)

**ExpectedConditions:**

elementToBeClickable

textToBePresentInElement

textToBePresentInElementValue

titleContains

titleIs

urlContains

urlIs

presenceOf

stalenessOf

visibilityOf

invisibilityOf

elementToBeSelected

not

and

or

browser.wait(ExpectedConditions.alertIsPresent(), 30000)

or you can write

let EC = ExpectedConditions;

browser.wait(EC.alertIsPresent(), 30000)

let EC = ExpectedConditions;

let condition = EC.**elementToBeClickable**(element(by.id("disable")))

browser.wait(condition, 30000)