

Policy Bazaar Home Page Locator Design & Testing

Task 1:

- Visit Policy Bazaar Home Page:
- Write a script to navigate to the Policy Bazaar home page (<https://www.policybazaar.com/>).

Solution:

This Problem can be handled by many ways:

1. By “window.open()” method we can easily navigate to the website in the new tab.

```
> window.open("https://www.policybazaar.com/");
```

```
< ▶ Window {window: Window, self: Window, document: document, name: '', location: Location, ...}
```

- **window:** ‘window’ refer here to the global browser window object.
- **Open():** ‘open()’ is a method of the window object that is used to open a new browser window or tab.
- We can passed the argument in the open() method and navigate to the browser through the console.

2. By “window.location.assign()” method we can easily navigate to the website in the current browsing context.

```
> window.location.assign("https://www.policybazaar.com/");
```

- **window.location:** ‘window.location’ is the property of the window object that is represent the current URL of the browser.
- **assign(): This is the method of** ‘window.location’ object, it takes the URL as the argument and loads the URL in the current browsing window.

3. By “window.location.href = “URL” is the property of the ‘window.location’ object that represent the current URL in the current page.

```
> window.location.href = "https://www.policybazaar.com/";
```

-
- **window.location:** ‘window.location’ is the property of the window object that is represent the current URL of the browser.
- **.href:** It is a property of the window.location object that represents the complete URL of the current page

4. By using IDE (vs code):

```
<> navigate.html > html > body > script > onload
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Navigation Test</title>
7  </head>
8  <body>
9      <script>
10         window.onload = function() {
11             var url = "https://www.policybazaar.com/";
12             window.location.href = url;
13         };
14     </script>
15 </body>
16 </html>
```

Task 2:

- Design locators to extract the inner text of each insurance product listed on the home page.

function scrapeDataFromConsole() {

// Function to navigate to a specific URL

function navigateTo(url) {

window.location.href = url;

}

// Function to extract inner text from elements matching a selector

function extractInnerText(selector) {

const elements = document.querySelectorAll(selector);

const innerTextArray = [];

elements.forEach(function(element, index) {

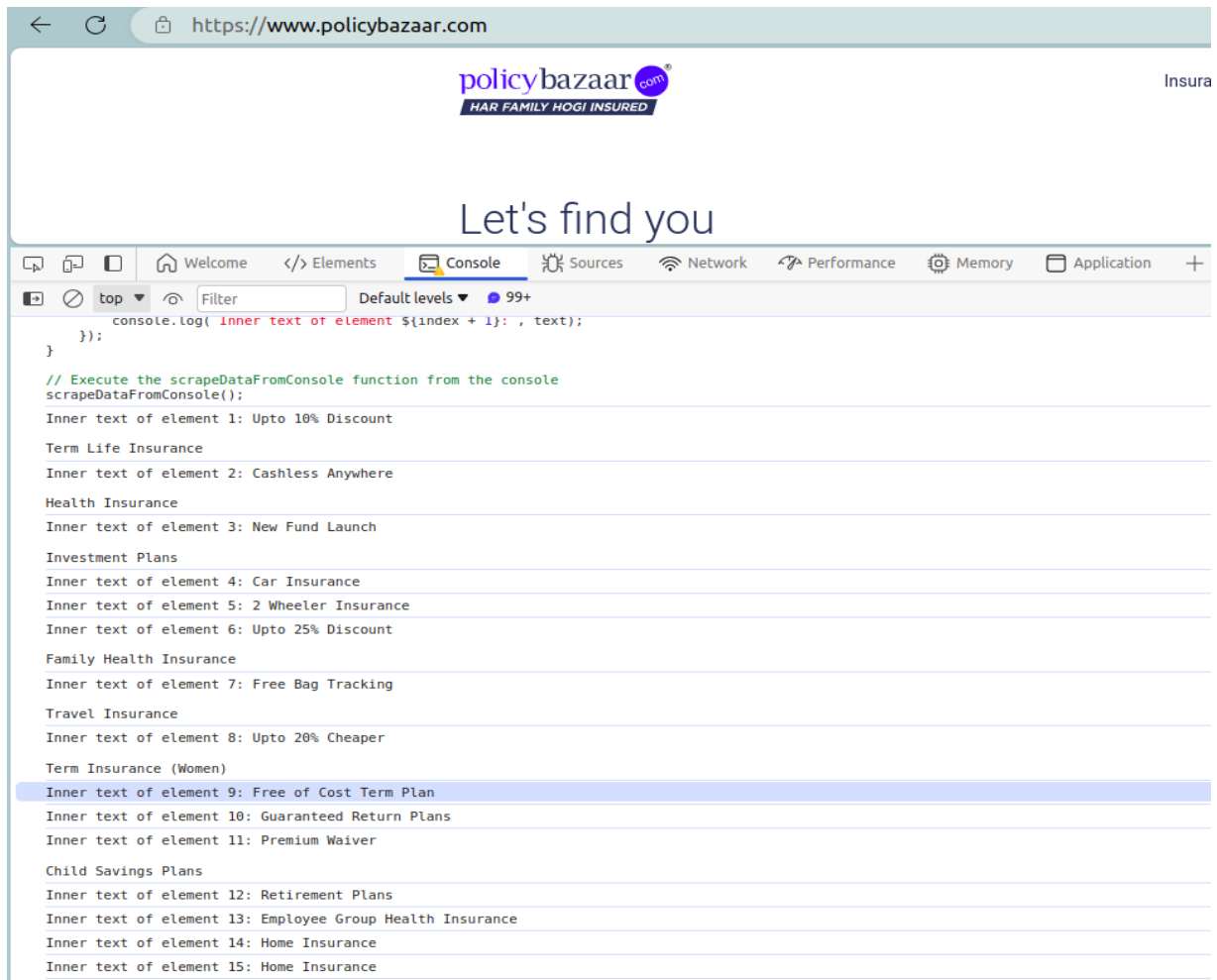
innerTextArray.push(element.innerText.trim());

});

```
    return innerTextArray;
}

// Navigating to the website
navigateTo('https://policybazaar.com');
const innerTextArray = extractInnerText('.prd-icon.add.shadowHandler.short');

innerTextArray.forEach(function(text, index) {
    console.log(`Inner text of element ${index + 1}:`, text);
});
}
scrapeDataFromConsole();
```



Task 03:

- Click on "View All Products"
- Verify there are two types of insurance products. ** Personal Insurance
** Business Insurance

Solution:

```
function clickAllProducts() {
```

```
    const viewAllProducts = document.evaluate('//div[@class="view-all-products "]/child::a',
document, null, XPathResult.FIRST_ORDERED_NODE_TYPE, null).singleNodeValue;
```

```
    if (viewAllProducts) {
```

```
        viewAllProducts.click();
```

```
    } else {
```

```

        console.log("View All Products not found!");
    }
}

//verifying the presence of personal and business insurance products
function verifyInsuranceProducts() {
    // Waiting to load all products
    setTimeout(() => {
        const personalInsurance = document.evaluate('//*[@id="homeIcons"]/ul/li[1]/label',
document, null, XPathResult.FIRST_ORDERED_NODE_TYPE, null).singleNodeValue;

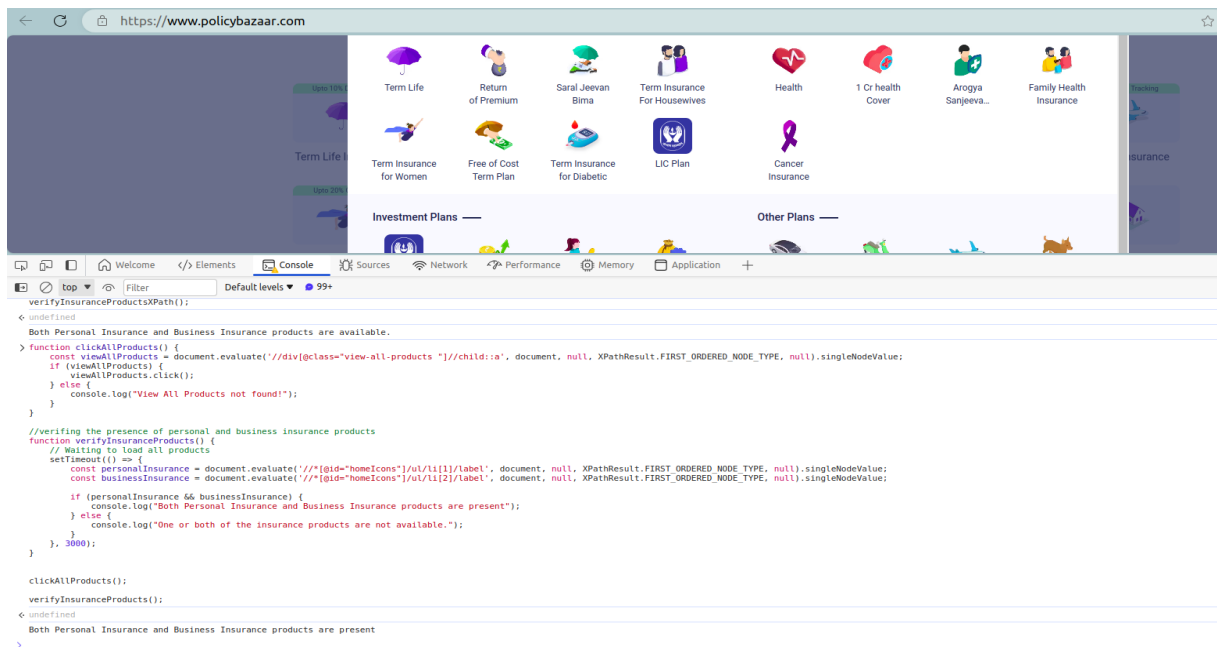
        const businessInsurance = document.evaluate('//*[@id="homeIcons"]/ul/li[2]/label',
document, null, XPathResult.FIRST_ORDERED_NODE_TYPE, null).singleNodeValue;

        if (personalInsurance && businessInsurance) {
            console.log("Both Personal Insurance and Business Insurance products are present");
        } else {
            console.log("One or both of the insurance products are not available.");
        }
    }, 3000);
}

clickAllProducts();
verifyInsuranceProducts();

```

Screenshot:



Task 4:

- Design locators to extract inner text information for each personal insurance product.
- Log the collection of personal insurance products along with their counts.

Solution: As I examined, there are **four sections** in the Personal Insurance section & we can extract each personal Insurance Product and get the inner text by following the modular approach in all sections and create a function for each section of it.

1. For Term Insurance (Personal Insurance)

```
function extractPersonalInsuranceProducts() {
```

```
    const personalInsuranceProducts = [];
```

```
    // Xpath locator for this operation
```

```
    const personalInsuranceElements = document.evaluate('//div[@id="tab-content1"]//child::div[1]//child::div[1]//child::ul[1]//child::a[1]', document, null, XPathResult.ORDERED_NODE_SNAPSHOT_TYPE, null);
```

```
    for (let i = 0; i < personalInsuranceElements.snapshotLength; i++) {
        const element = personalInsuranceElements.snapshotItem(i);
        personalInsuranceProducts.push(element.innerText.trim());
    }
```

```

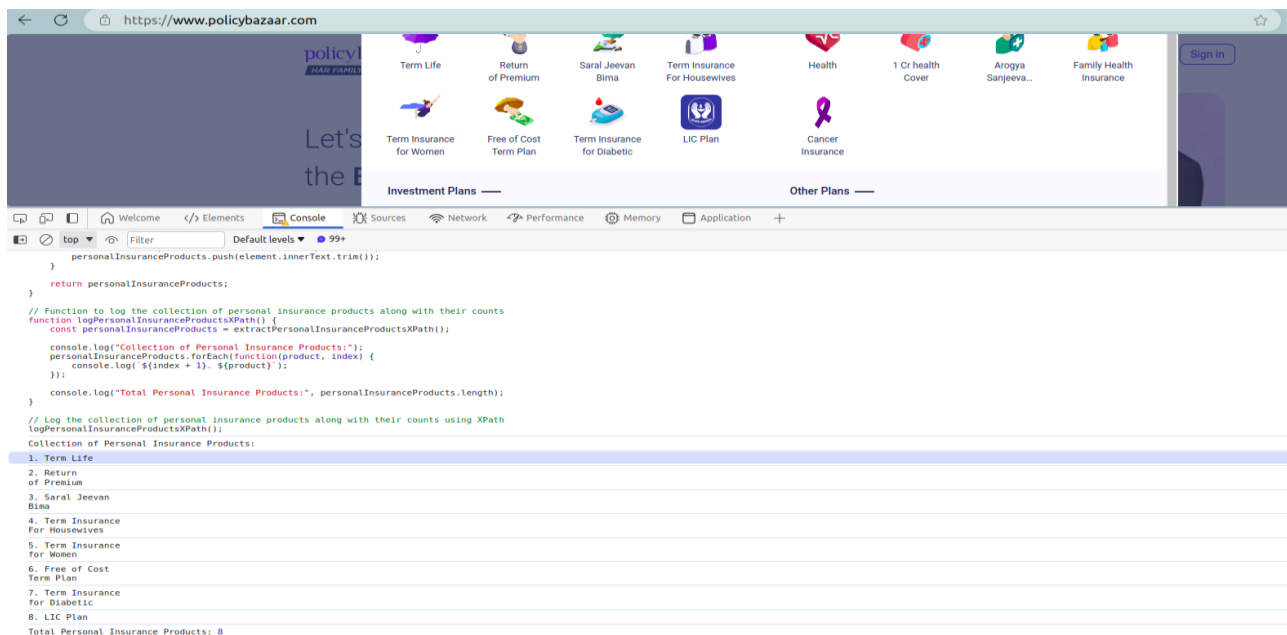
return personalInsuranceProducts;
}

// Function to log the collection of personal insurance products along with their counts
function logPersonalInsuranceProductsXPath() {
    const personalInsuranceProducts = extractPersonalInsuranceProductsXPath();

    console.log("Collection of Personal Insurance Products:");
    personalInsuranceProducts.forEach(function(product, index) {
        console.log(`${index + 1}. ${product}`);
    });
    console.log("Total Personal Insurance Products:", personalInsuranceProducts.length);
}

logPersonalInsuranceProducts();

```



Explanation:

- **xpathresult.ordered_node_snapshot_type:** This gets a list of nodes from an XPath query. The nodes are in the same order as they appear in the document.
- **snapshotItem(i):** This is a function that lets we access a specific node in the list by its index i.
- **snapshotLength:** This tells us how many nodes are in the list.

So, if we run an XPath query and use **ordered_node_snapshot_type**, we get a list of nodes. We can find out how many nodes are in the list using **snapshotLength**, and access each node using **snapshotItem(i)**. If the document changes, our list stays the same because it's a "snapshot".

2. For Health(Personal Insurance)

```
function extractPersonalInsuranceProductsHealth() {  
    const personalInsuranceProductsHealth = [];  
  
    const personalInsuranceElementsHealth = document.evaluate('//*[ @id="tab-content1"]//child::div[1]//child::div[2]/child::ul[1]//child::li', document, null, XPathResult.ORDERED_NODE_SNAPSHOT_TYPE, null);  
  
    for (let i = 0; i < personalInsuranceElementsHealth.snapshotLength; i++) {  
        const element = personalInsuranceElementsHealth.snapshotItem(i);  
        personalInsuranceProductsHealth.push(element.innerText.trim());  
    }  
  
    return personalInsuranceProductsHealth;  
}  
  
// Function to log the collection of personal insurance products
```



```

function logPersonalInsuranceProductsHealth() {

    const personalInsuranceProductsHealth = extractPersonalInsuranceProducts();


    console.log("Collection of Personal Insurance Products:");

    personalInsuranceProductsHealth.forEach(function(product, index) {

        console.log(`${index + 1}. ${product}`);

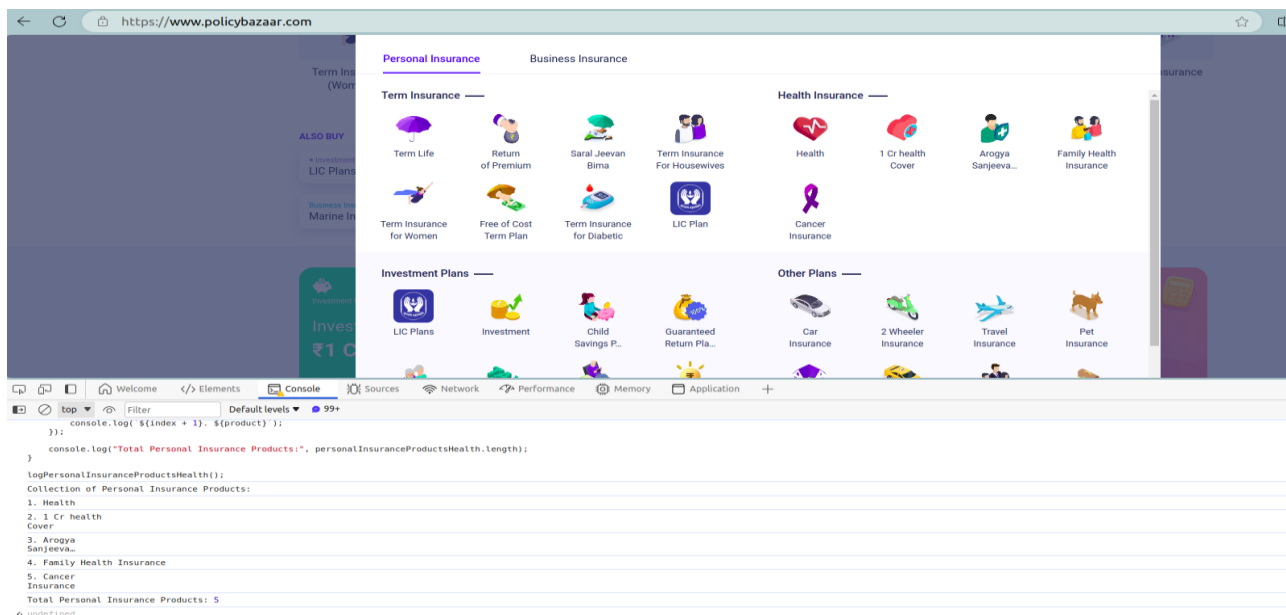
    });


    console.log("Total Personal Insurance Products:", personalInsuranceProductsHealth.length);

}

logPersonalInsuranceProductsHealth();

```



3. For Investment Plans (Personal Insurance)

```

function extractPersonalInsuranceProductsInvestmentPlans() {

    const personalInsuranceProductsInvestmentPlans = [];

    const personalInsuranceElementsInvestmentPlans = document.evaluate("//div[@class = 'icon-block-row bg-blue']/child::div[1]/child::li", document, null, XPathResult.ORDERED_NODE_SNAPSHOT_TYPE, null);

```

```

    for (let i = 0; i < personalInsuranceElementsInvestmentPlans.snapshotLength; i++) {
        const element = personalInsuranceElementsInvestmentPlans.snapshotItem(i);
        personalInsuranceProductsInvestmentPlans.push(element.innerText.trim());
    }

    return personalInsuranceProductsInvestmentPlans;
}

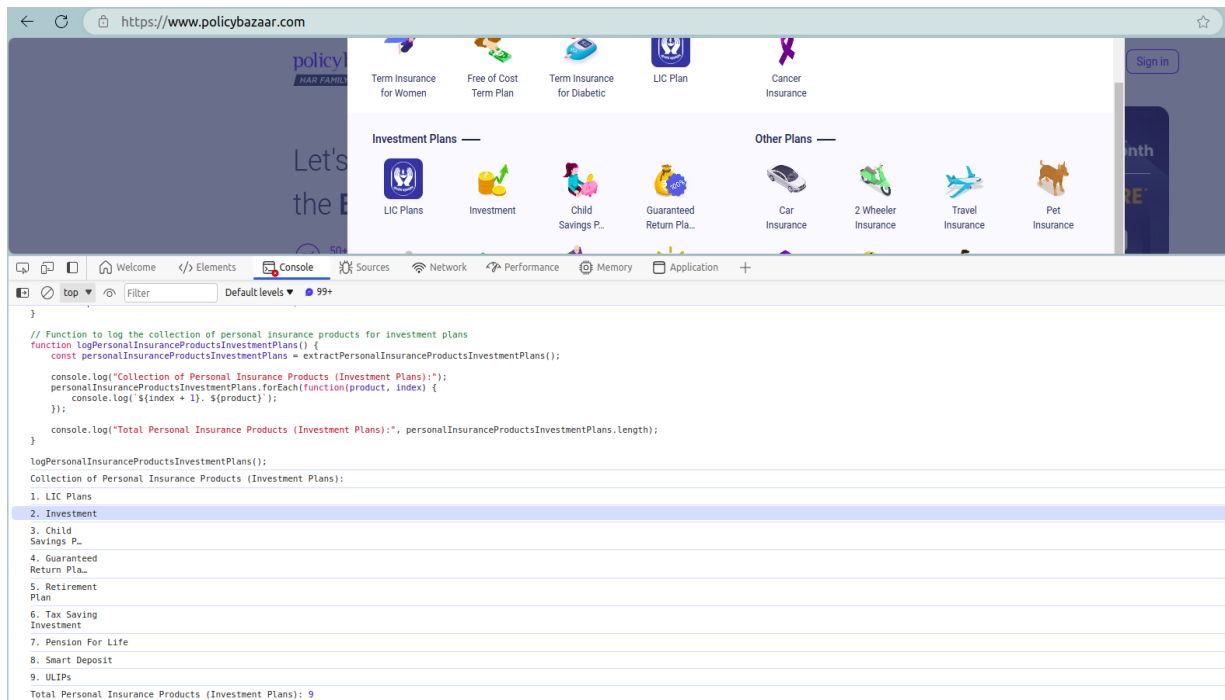
// Function to log the collection of personal insurance products for investment plans
function logPersonalInsuranceProductsInvestmentPlans() {
    const personalInsuranceProductsInvestmentPlans =
        extractPersonalInsuranceProductsInvestmentPlans();

    console.log("Collection of Personal Insurance Products (Investment Plans):");
    personalInsuranceProductsInvestmentPlans.forEach(function(product, index) {
        console.log(`${index + 1}. ${product}`);
    });

    console.log("Total Personal Insurance Products (Investment Plans):",
        personalInsuranceProductsInvestmentPlans.length);
}

logPersonalInsuranceProductsInvestmentPlans();

```



4. For Other Plans (Personal Insurance)

```
function extractOtherPlans() {
```

```
  const otherPlans = [];
```

```
  const otherPlansElements = document.querySelectorAll('#tab-content1 > div:nth-child(2) > div:nth-child(2) > ul > li');
```

```
  otherPlansElements.forEach(element => {
    otherPlans.push(element.innerText.trim());
  });
```

```
  return otherPlans;
```

```
}
```

```
function logOtherPlans() {
```

```
  const otherPlans = extractOtherPlans();
```

```

console.log("Collection of Other Plans:");

otherPlans.forEach((plan, index) => {

    console.log(`${index + 1}. ${plan}`);

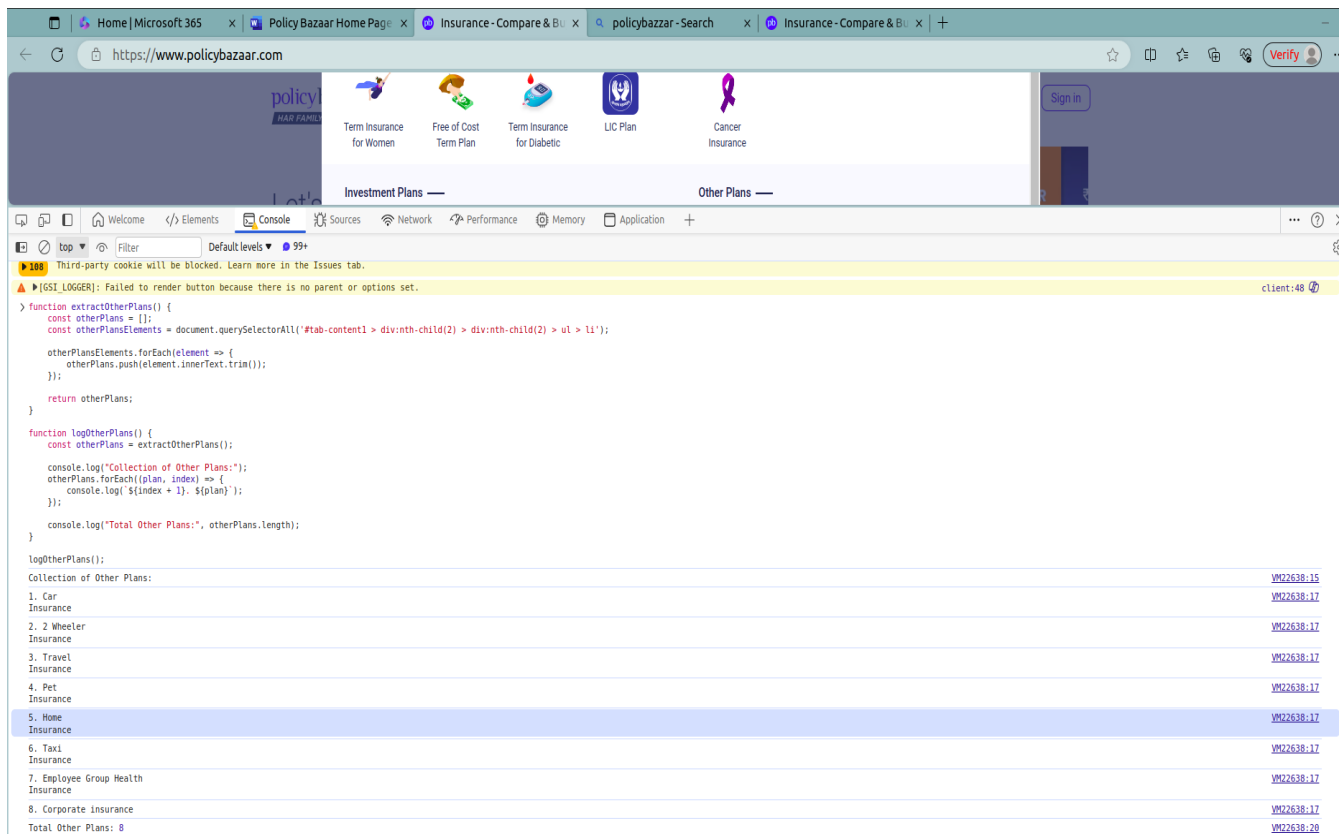
});

console.log("Total Other Plans:", otherPlans.length);

}

logOtherPlans();

```



Task 5:

- Design locators to extract inner text information for each business insurance product.
- Log the collection of business insurance products along with their counts.

As I examined, we can extract inner parts by two ways first one is extract all products under this section in one time execution & other is by each function.

First Approach :

// Function to extract business insurance products using the provided XPath expression

```
function extractBusinessInsurance() {  
    // Array to store business insurance products  
    const businessInsuranceProducts = [];  
  
    // Evaluate the XPath expression to select relevant elements  
    const businessInsuranceElements = document.evaluate("//li[@class='tab']//div[@id='tab-content2']//a",document,null,XPathResult.ORDERED_NODE_SNAPSHOT_TYPE, null);  
  
    // Iterate through selected elements and push their text content into the array  
    for (let i = 0; i < businessInsuranceElements.snapshotLength; i++) {  
        const element = businessInsuranceElements.snapshotItem(i);  
        businessInsuranceProducts.push(element.innerText.trim());  
    }  
  
    // Return the array of business insurance products  
    return businessInsuranceProducts;  
}
```

// Function to log the collection of business insurance products

```
function logBusinessInsuranceProducts() {  
    // Extract business insurance products  
    const businessInsuranceProducts = extractBusinessInsurance();  
  
    // Log the collection of business insurance products  
    console.log("Collection of Business Insurance Products:");
```

```

businessInsuranceProducts.forEach((product, index) => {

    console.log(`${index + 1}. ${product}`);

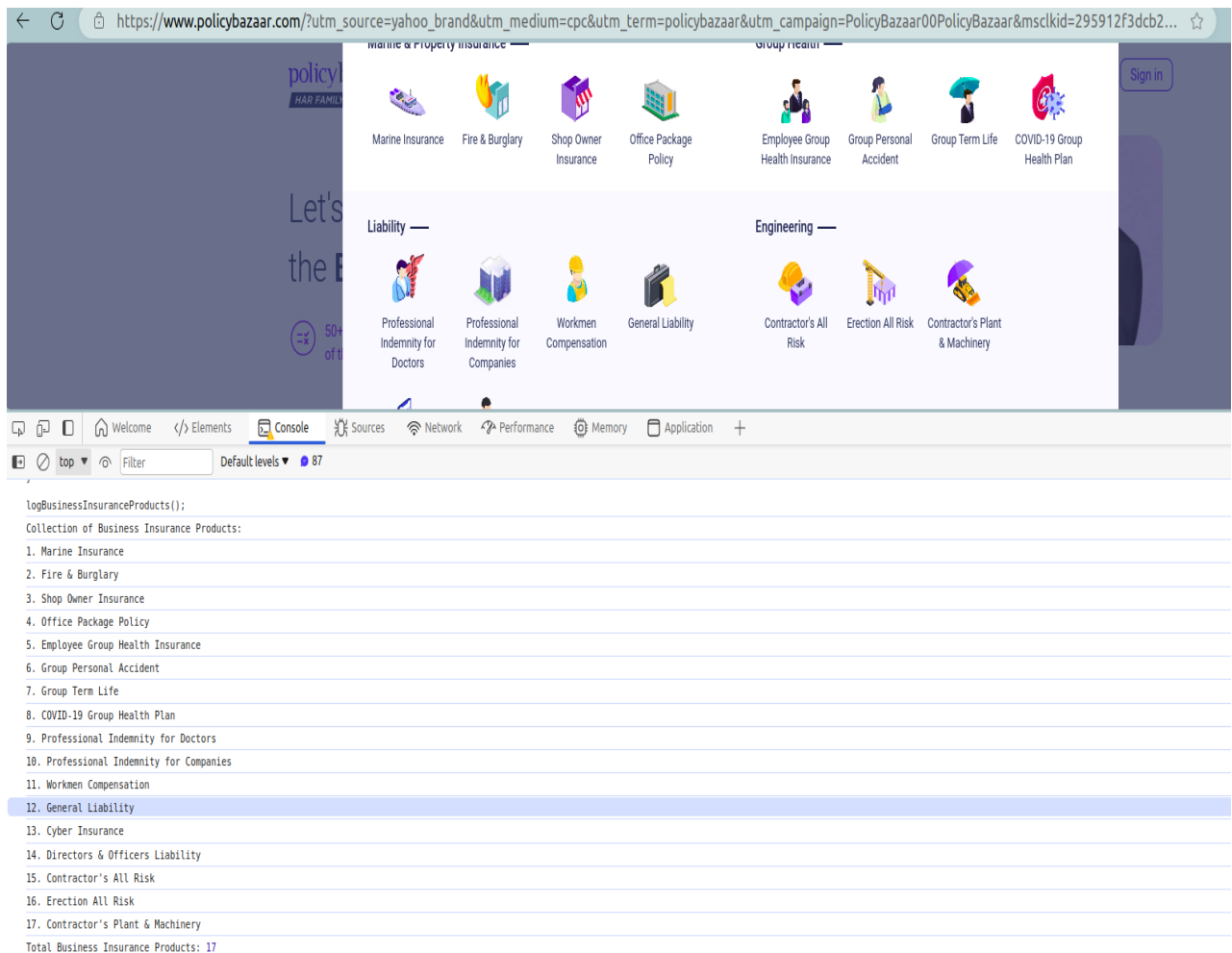
});

// Log the total number of business insurance products
console.log("Total Business Insurance Products:", businessInsuranceProducts.length);

}

// Call the function to log business insurance products
logBusinessInsuranceProducts();

```



Second Approach: By Each Section

1. Marine & Property Insurance:

// Function to extract Marine & Property Insurance products using the provided XPath expression

```
function extractMarinePropertyInsurance() {  
    // Array to store Marine & Property Insurance products  
    const marinePropertyInsurance = [];  
    // Evaluate the XPath expression to select relevant elements  
    const insuranceElements = document.evaluate(  
        '//div[@id="tab-content2"]//child::div[1]/child::div[1]/child::ul[1]/li',  
        document,  
        null,  
        XPathResult.ORDERED_NODE_SNAPSHOT_TYPE,  
        null  
    );  
  
    // Iterate through selected elements and push their text content into the array  
    for (let i = 0; i < insuranceElements.snapshotLength; i++) {  
        const element = insuranceElements.snapshotItem(i);  
        marinePropertyInsurance.push(element.innerText.trim());  
    }  
  
    // Return the array of Marine & Property Insurance products  
    return marinePropertyInsurance;  
}
```

// Function to log the collection of Marine & Property Insurance products

```
function logMarinePropertyInsurance() {  
    // Extract Marine & Property Insurance products
```

```

const marinePropertyInsurance = extractMarinePropertyInsurance();

// Log the collection of Marine & Property Insurance products
console.log("Collection of Marine & Property Insurance Products:");

marinePropertyInsurance.forEach((product, index) => {

    console.log(`${index + 1}. ${product}`);

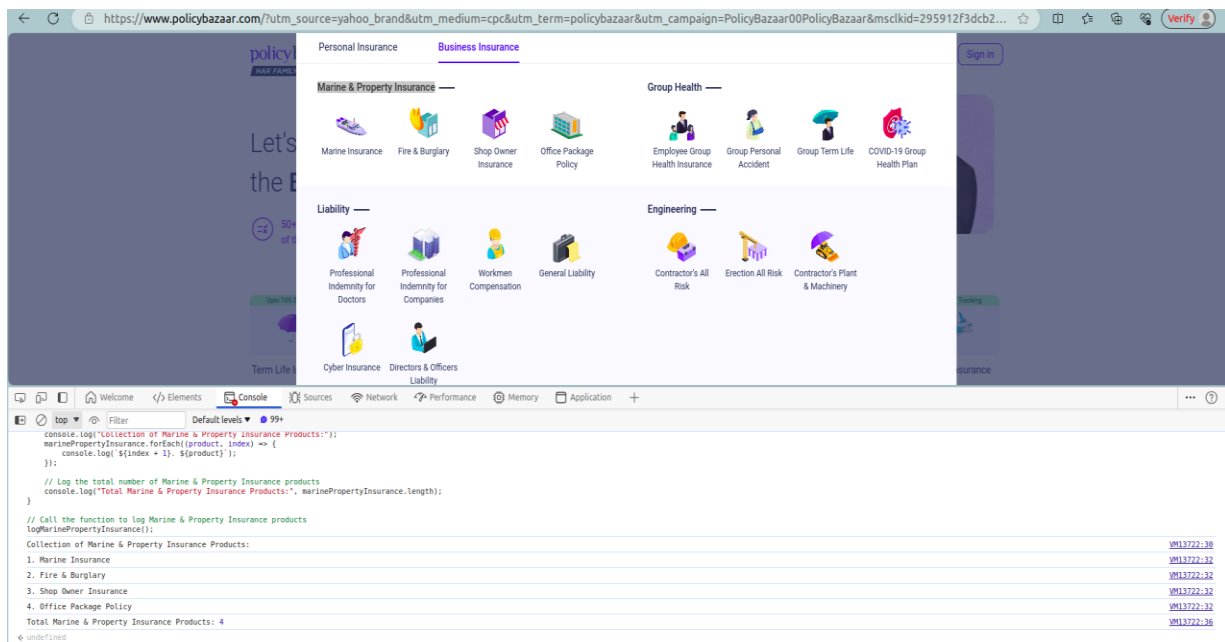
});

// Log the total number of Marine & Property Insurance products
console.log("Total Marine & Property Insurance Products:", marinePropertyInsurance.length);

}

// Call the function to log Marine & Property Insurance products
logMarinePropertyInsurance();

```



2. Group Health

// Function to extract Group Health products using the provided XPath expression


```

function extractGroupHealth() {
    // Array to store Group Health products
    const groupHealthProducts = [];

    // Evaluate the XPath expression to select relevant elements
    const groupHealthElements = document.evaluate(
        '//div[@id="tab-content2"]//child::div[1]/child::div[2]/child::ul[1]/li',
        document,
        null,
        XPathResult.ORDERED_NODE_SNAPSHOT_TYPE,
        null
    );

    // Iterate through selected elements and push their text content into the array
    for (let i = 0; i < groupHealthElements.snapshotLength; i++) {
        const element = groupHealthElements.snapshotItem(i);
        groupHealthProducts.push(element.innerText.trim());
    }

    // Return the array of Group Health products
    return groupHealthProducts;
}

// Function to log the collection of Group Health products
function logGroupHealth() {
    // Extract Group Health products
    const groupHealthProducts = extractGroupHealth();

    // Log the collection of Group Health products

```

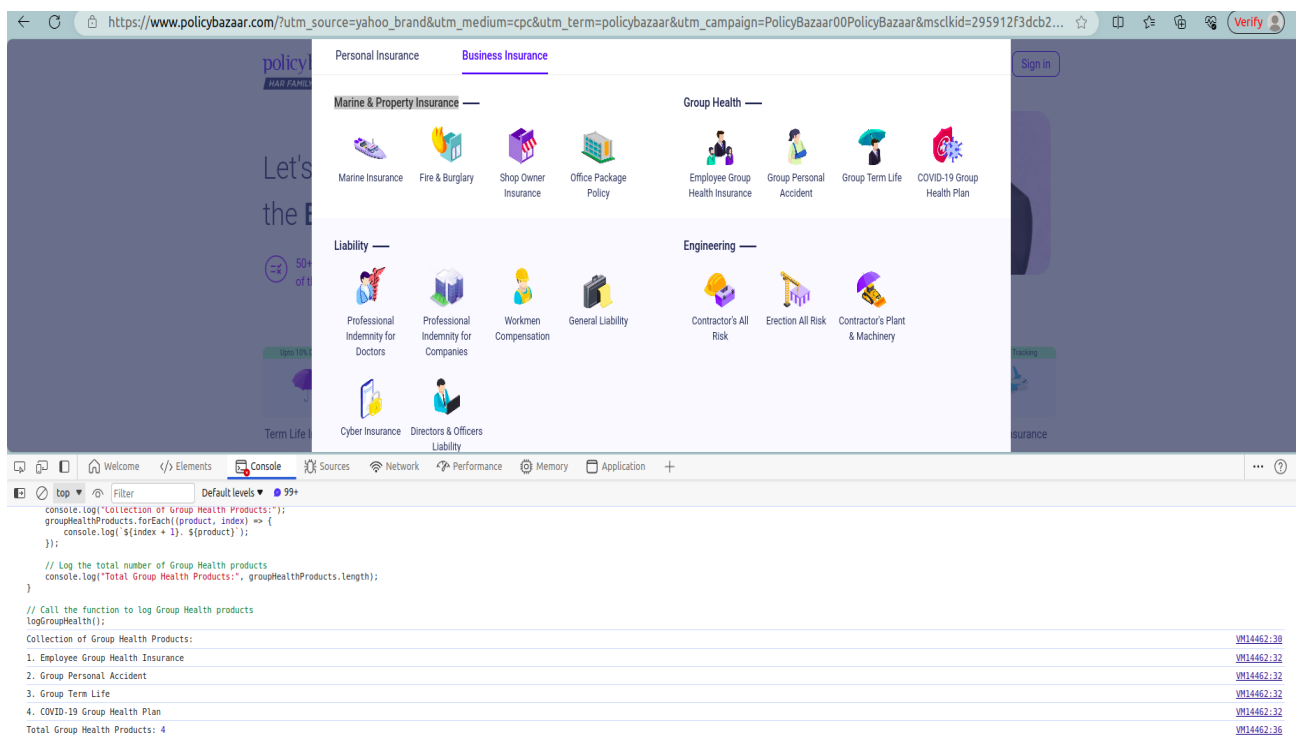
```

console.log("Collection of Group Health Products:");
groupHealthProducts.forEach((product, index) => {
    console.log(`${index + 1}. ${product}`);
});

// Log the total number of Group Health products
console.log("Total Group Health Products:", groupHealthProducts.length);
}

// Call the function to log Group Health products
logGroupHealth();

```



3. Liability

```

// Function to extract Liability products using the provided XPath expression
function extractLiability() {

    // Array to store Liability products

```

```

const liabilityProducts = [];

// Evaluate the XPath expression to select relevant elements
const liabilityElements = document.evaluate(
  '//div[@id="tab-content2"]//child::div[2]/child::div[1]/child::ul[1]/li',
  document,
  null,
  XPathResult.ORDERED_NODE_SNAPSHOT_TYPE,
  null
);

// Iterate through selected elements and push their text content into the array
for (let i = 0; i < liabilityElements.snapshotLength; i++) {
  const element = liabilityElements.snapshotItem(i);
  liabilityProducts.push(element.innerText.trim());
}

// Return the array of Liability products
return liabilityProducts;
}

// Function to log the collection of Liability products
function logLiability() {
  // Extract Liability products
  const liabilityProducts = extractLiability();

  // Log the collection of Liability products
  console.log("Collection of Liability Products:");
  liabilityProducts.forEach((product, index) => {

```

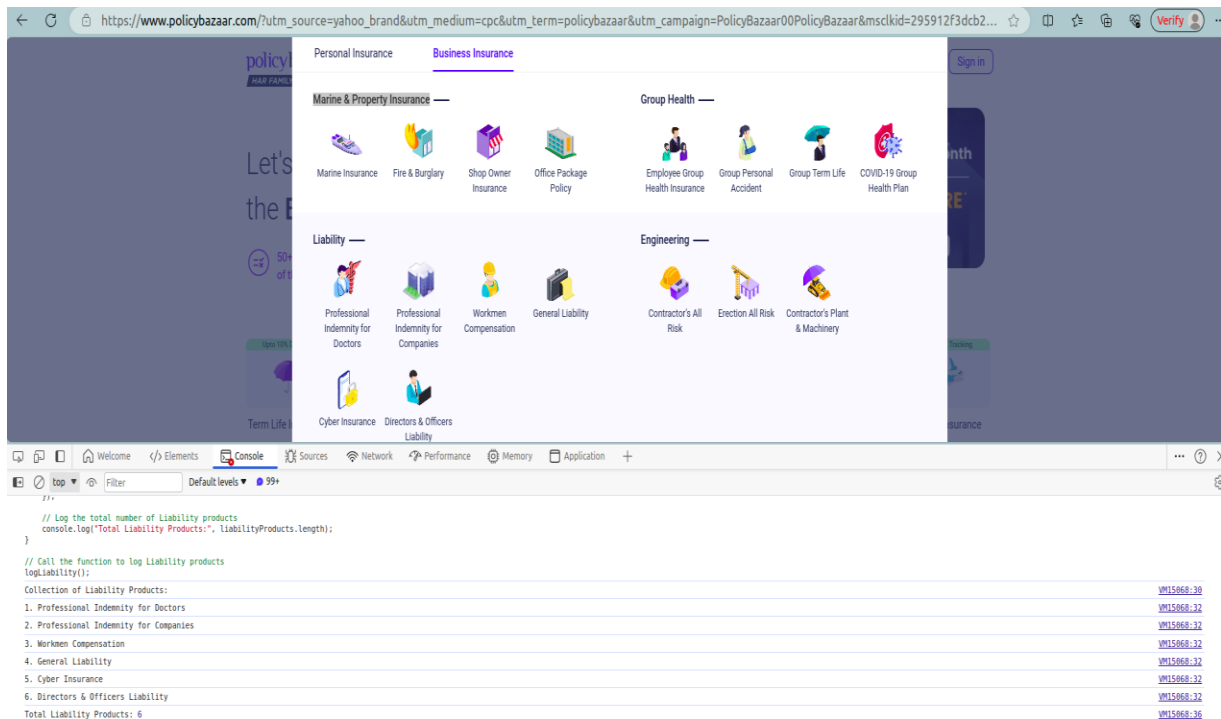
```

        console.log(`${index + 1}. ${product}`);
    });

    // Log the total number of Liability products
    console.log("Total Liability Products:", liabilityProducts.length);
}

// Call the function to log Liability products
logLiability();

```



4. Engineering

// Function to extract Engineering products using the provided XPath expression

```

function extractEngineering() {
    // Array to store Engineering products
    const engineeringProducts = [];

    // Evaluate the XPath expression to select relevant elements

```

```

const engineeringElements = document.evaluate(
  '//div[@id="tab-content2"]//child::div[2]/child::div[2]/child::ul[1]/li',
  document,
  null,
  XPathResult.ORDERED_NODE_SNAPSHOT_TYPE,
  null
);

// Iterate through selected elements and push their text content into the array
for (let i = 0; i < engineeringElements.snapshotLength; i++) {
  const element = engineeringElements.snapshotItem(i);
  engineeringProducts.push(element.innerText.trim());
}

// Return the array of Engineering products
return engineeringProducts;
}

// Function to log the collection of Engineering products
function logEngineering() {
  // Extract Engineering products
  const engineeringProducts = extractEngineering();

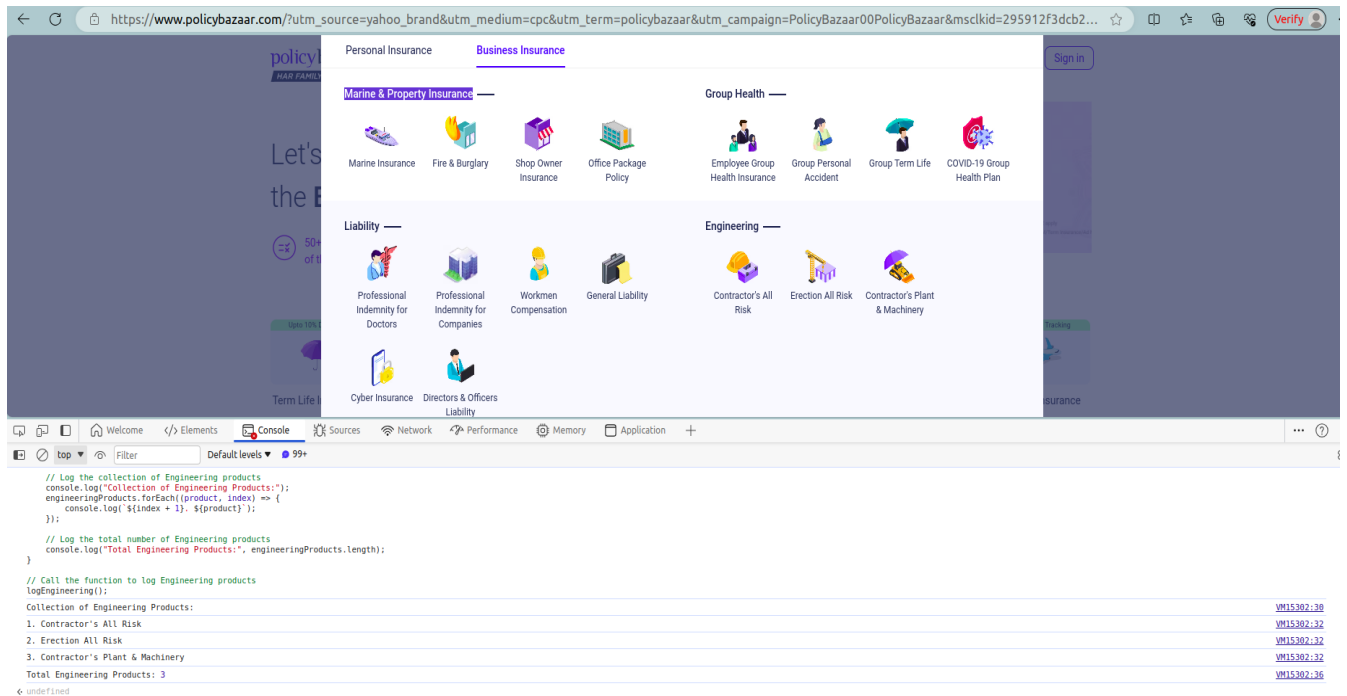
  // Log the collection of Engineering products
  console.log("Collection of Engineering Products:");
  engineeringProducts.forEach((product, index) => {
    console.log(`${index + 1}. ${product}`);
  });
}

```

```
// Log the total number of Engineering products

console.log("Total Engineering Products:", engineeringProducts.length);
}

// Call the function to log Engineering products
logEngineering();
```



Explanation:

- **xpathresult.ordered_node_snapshot_type:** This gets a list of nodes from an XPath query. The nodes are in the same order as they appear in the document.
- **snapshotItem(i):** This is a function that lets we access a specific node in the list by its index *i*.
- **snapshotLength:** This tells us how many nodes are in the list.

So, if we run an XPath query and use **ordered_node_snapshot_type**, we get a list of nodes. We can find out how many nodes are in the list using **snapshotLength**, and access each node using **snapshotItem(i)**. If the document changes, our list stays the same because it's a "snapshot".