

Date:16.10.2021

**Third Year B. Tech., Sem V 2021-22**

**Programming Lab 3**

**Practical No- 5B**

**PRN/ Roll No: 2019BTECS00064**

**Full name: Kunal Santosh Kadam**

**Batch: T2**

**Title of Practical: To design and develop web pages using  
HTML fundamental and formatting elements**

**Problem Statement 1:**

Design and develop a static web page using HTML for Astronomy blog. Access it locally and in LAN using web server.

It should have following sections:

1. Header – Title and authorship information of a blog
2. Three links to other astronomy blogs
3. Article – At least two articles should be there
4. Contact Information of author

It should have following tags:

1. Use semantic tags appropriately (<section>, <header>, <footer>, <article>,
2. <aside> and <nav>)
3. Use <h1> to <h6> tags at least once.
4. Use single line break tag.

5. Use <a> tags in the articles with the absolute and relative URLs.
6. Use thematic grouping for different sections and articles using <hr> tag.
7. Use <strong> and <em> instead of <b> and <i> resp.
8. Use <address> tag for displaying author's information.

Ans:

Code:

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="UTF-8" />
5 <title>Astronomy Blog</title>
6 </head>
7 <body>
8 <header style="text-align: center">
9 <h1>Astronomy Blog</h1>
10 <h2>By Kunal Kadam</h2>
11 </header>
12 <hr />
13 <article>
14 <h3>What is Astronomy?</h3>
15 <p>
16 Astronomy is the study of everything in the universe beyond Earth's atmosphere. That includes objects we can see with our naked eyes,
17 like the Sun , the Moon , the planets, and the stars . It also includes objects we can only see with telescopes or other instruments,
18 like Faraway galaxies and tiny particles. And it even includes questions about things we can't see at all, like dark matter and dark
19 energy.
20 </p>
21 </article>
22 <article>
23 <h3>Why Astronomy is so much popular?</h3>
24 <p>
25 Before the Internet, if you had a question about how to start engaging in astronomical pursuits, you had three avenues to get your
26 answers:
27 <ul>
28 <li>
29 Buy a book and trudge through technical jargon, spending half your time looking words up in a dictionary and re-reading previous
30 pages, trying to wrap your head around the difference between declinations and constellations.
31 </li>
32 <li>
33 Subscribe to Sky & Telescope, or another publication, and spend half your time reading the book from issue #1, trying to get up to
34 speed on just what they're talking about.
35 </li>
36 <li>
37 Talk to someone you knew who owned a telescope and could mentor you... OK, so you really only had two roads to take, because NO ONE
38 you knew owned a telescope or knew how to use one.
39 </li>
40 </ul>
41 </p>
42 </article>
43 <hr />
44 <article>
45 <h3>Astronomy Jobs and Average Salary</h3>
46 <ul>
47 <li>Research Scientist: 87,849 USD/year</li>
48 <li>Planetarium director: 85,489 USD/year</li>
49 <li>Meteorologist: 85,589 USD/year</li>
50 <li>Aeronautical engineer: 99,796 USD/year</li>
51 <li>Astronomer: 111,090 USD/year</li>
52 <li>Astrophysicist: 119,580 USD/year</li>
53 </ul>
54 </article>
55 <hr />
56 <h3>Other Related Blogs:</h3>
57 <ul>
58 <li>
59 <a href="https://skyandtelescope.org/astronomy-information/">
60 Beginner Guide to Astronomy
61 </a>
62 </li>
63 </ul>

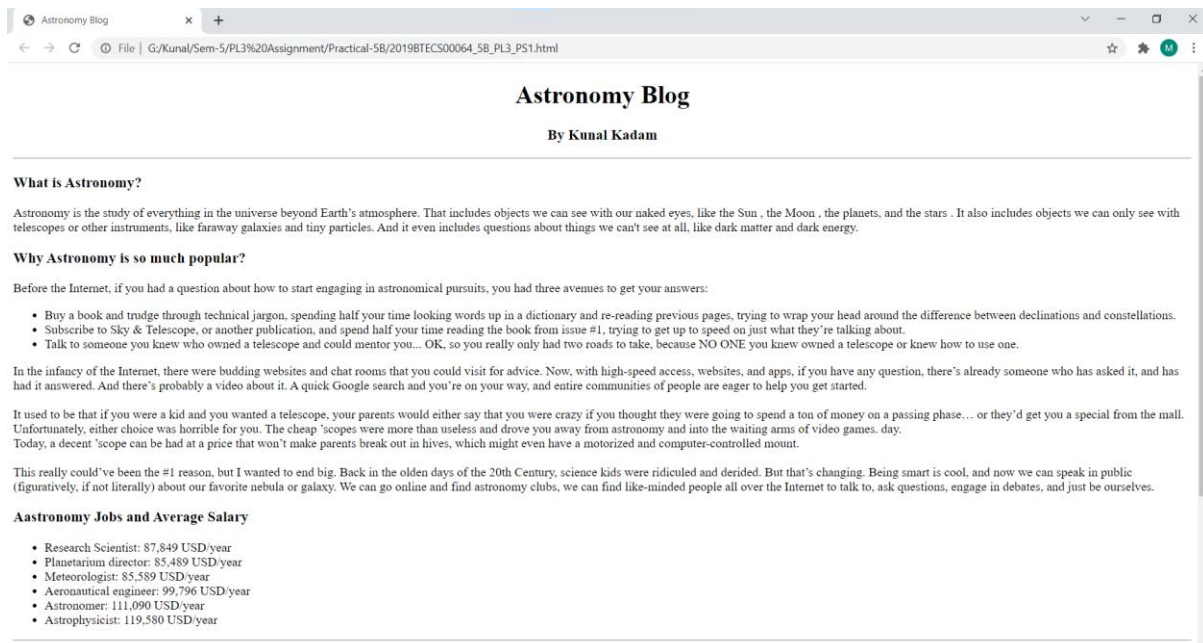
```

```

60 <li>
61 <a href="https://skyandtelescope.org/astronomy-information/">
62 Beginner Guide to Astronomy
63 </a>
64 </li>
65 </li>
66 <a href="https://news.fit.edu/academics-research/skills-successful-astronomy-career/">
67 Skills required for Astronomy Student
68 </a>
69 </li>
70 </li>
71 <a href="https://blog.edgert.com/beyond-the-stars-a-career-in-astronomy-scope-opportunities/">
72 Scope of Astronomy
73 </a>
74 </li>
75 </ul>
76 <hr />
77 <address>
78 <p>Contributed By : <strong>Kunal Kadam</strong></p>
79 <p>Contact Number : <strong>9890300734</strong></p>
80 <p>
81 Email :
82 <strong>
83 <a href="mailto:user@domain.com">
84 user@domain.com
85 </a>
86 </strong>
87 </p>
88 </address>
89 <footer style="text-align: center;">
90 &copy;T2_2019BTECS00064
91 </footer>
92 </body>
93 </html>

```

## Output:



Astronomy Blog

+

File | G:/Kunal/Sem-5/PL3%20Assignment/Practical-5B/2019BTECS00064\_5B\_PL3\_PS1.html

☆

M

Before the Internet, if you had a question about how to start engaging in astronomical pursuits, you had three avenues to get your answers:

- Buy a book and trudge through technical jargon, spending half your time looking words up in a dictionary and re-reading previous pages, trying to wrap your head around the difference between declinations and constellations.
- Subscribe to Sky & Telescope, or another publication, and spend half your time reading the book from issue #1, trying to get up to speed on just what they're talking about.
- Talk to someone you knew who owned a telescope and could mentor you... OK, so you really only had two roads to take, because NO ONE you knew owned a telescope or knew how to use one.

In the infancy of the Internet, there were budding websites and chat rooms that you could visit for advice. Now, with high-speed access, websites, and apps, if you have any question, there's already someone who has asked it, and has had it answered. And there's probably a video about it. A quick Google search and you're on your way, and entire communities of people are eager to help you get started.

It used to be that if you were a kid and you wanted a telescope, your parents would either say that you were crazy if you thought they were going to spend a ton of money on a passing phase... or they'd get you a special from the mall. Unfortunately, either choice was horrible for you. The cheap 'scopes were more than useless and drove you away from astronomy and into the waiting arms of video games. day. Today, a decent 'scope can be had at a price that won't make parents break out in hives, which might even have a motorized and computer-controlled mount.

This really could've been the #1 reason, but I wanted to end big. Back in the olden days of the 20th Century, science kids were ridiculed and derided. But that's changing. Being smart is cool, and now we can speak in public (figuratively, if not literally) about our favorite nebula or galaxy. We can go online and find astronomy clubs, we can find like-minded people all over the Internet to talk to, ask questions, engage in debates, and just be ourselves.

### Astronomy Jobs and Average Salary

- Research Scientist: \$7,849 USD/year
- Planetarium director: \$5,489 USD/year
- Meteorologist: \$5,589 USD/year
- Aeronautical engineer: \$9,796 USD/year
- Astronomer: \$11,090 USD/year
- Astrophysicist: \$19,580 USD/year

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### Other Related Blogs:

- [Beginner Guide to Astronomy](#)
- [Skills required for Astronomy Student](#)
- [Scope of Astronomy](#)

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Contributed By : **Kunal Kadam**

Contact Number : **9890300734**

Email : [user@domain.com](mailto:user@domain.com)

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**Problem Statement 2:**

Design and develop a static web page using HTML for following requirement.  
Access it locally and in LAN using web server.

It should have following sections:

1. Problem Statement: Write a program in any language to read 10 numbers from keyboard and find their sum and average.
2. Code
3. Sample Input
4. Sample Output
5. Variables used in the program
6. Complexity

It should have following tags:

1. Use semantic tags appropriately (<section>, <header>, <footer>, <article>, <aside> and <nav>)
2. Use <code>, <samp>, <kbd>, and <var> at least once.
3. Use <s>, <small>, <sub> and <sup> at least once.
4. Use <h1> to <h6> tags at least once.
5. Use single line break tag.
6. Use thematic grouping for different sections using <hr> tag.
7. Add the reference link for the algorithm using <a> tag.

**Ans:**

## Code:

The image displays two screenshots of a Sublime Text editor window, showing the development of an HTML document. The window title is "G:\Kunal\Sem-5\PL3 Assignment\Practical-5B\2019BTECS00064\_5B\_PL3\_PS2.html (PL3 Assignment) - Sublime Text (UNREGISTERED)".

**Top Screenshot:** The editor shows the initial HTML structure. The file explorer on the left lists folders like "PL3 Assignment", "Practical-1", "Practical-2", "Practical-3", "Practical-4", "Practical-5", "Practical-5A", and "Practical-5B". The main editor area contains the following HTML code:

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8" />
5   <title>Find Sum and Average</title>
6 </head>
7 <body>
8   <h2 style="text-align: center;">
9     Write a program in any language to read 10 numbers from
10    keyboard and find their sum and average.
11  </h2>
12  <hr />
13  <h3>
14    CPP Code:
15  </h3>
16  <pre>
17  <code>
18    #include <bits/stdc++.h>
19    using namespace std;
20    // function to take 10 numbers and
21    // find sum and average
22    float average(int arr[])
23    {
24      float ans=0;
25      for(int i=0;i<10;i++)
26        ans+=arr[i];
27      return ans/10.0;
28    }
29
30    int sum(int arr[])
31    {
32      int ans=0;
33      for(int i=0;i<10;i++)
34        ans+=arr[i];
35      return ans;
36    }
37
38    // driver code
39    int main()
40    {

```

**Bottom Screenshot:** The editor shows the same HTML document after adding the C++ code and its output. The main editor area contains the following HTML code:

```

39    int main()
40    {
41      int arr[10];
42      cout<<"Enter 10 numbers: \n";
43      for(int i=0;i<10;i++)
44        cin>>arr[i];
45      cout<<"Sum is: ";
46      cout<< sum(arr)<< endl;
47      cout<< "Average is: "<< average(arr);
48      return 0;
49    }
50  </code>
51  </pre>
52  <hr />
53  <section>
54    <code>
55      Enter 10 numbers:
56    </code>
57    4
58    23
59    89
60    45
61    9
62    34
63    68
64    23
65    67
66  </code>
67  </section>
68  <hr />
69  <section>
70    <samp>Sum is: 418</samp>
71  </section>
72  <hr />
73  <section>
74    <samp>Average is: 41.8</samp>
75  </section>
76  <hr />
77  <section>
78    <var>used variables: arr[] </var>
79  </section>

```

```

78 </section>
79 <hr />
80 <section>
81 <p>Time Complexity: O(N)</p>
82 </section>
83 <hr />
84 <section>
85 <div>
86 Reference :
87 <a href="https://www.geeksforgeeks.org/program-average-array-iterative-recursive/"target="blank">
88 Link for the Problem
89 </a>
90 </div>
91 </section>
92 <hr />
93 <footer style="text-align: center">
94 <small>&copy; T2_2019BTECS00064</small>
95 </footer>
96 </body>
97 </html>

```

## Output:

Write a program in any language to read 10 numbers from keyboard and find their sum and average.

**C++ Code:**

```

#include <bits/stdc++.h >
using namespace std;
// function to take 10 numbers and
// find sum and average
float average(int arr[])
{
    float ans=0.;
    for(int i=0;i<10;i++)
        ans+=arr[i];
    return ans/10.0;
}

int sum(int arr[])
{
    int ans=0;
    for(int i=0;i<10;i++)
        ans+=arr[i];
    return ans;
}

// driver code
int main()
{
    int arr[10];
    cout<<"Enter 10 numbers: \n";
    for(int i=0;i<10;i++)
        cin>>arr[i];
    cout<<"Sum is: ";
    cout<<sum(arr)<<endl;
    cout<<"Average is: "<<average(arr);
    return 0;
}

```

Enter 10 numbers:  
4 56 23 89 45 9 34 68 23 67

Sum is: 410  
Average is: 41.0

Find Sum and Average

G:\Kunal\Sem-5\PL3%20Assignment\Practical-5B\2019BTECS00064\_SB\_PL3\_PS2.html

```
//find sum and average
float average(int arr[])
{
    float ans=0;
    for(int i=0;i<10;i++)
        ans+=arr[i];
    return ans/10.0;
}

int sum(int arr[])
{
    int ans=0;
    for(int i=0;i<10;i++)
        ans+=arr[i];
    return ans;
}

// driver code
int main()
{
    int arr[10];
    cout<<"Enter 10 numbers: \n";
    for(int i=0;i<10;i++)
        cin>>arr[i];
    cout<<"Sum is: ";
    cout<<sum(arr)<<endl;
    cout<<"Average is: "<<average(arr);
    return 0;
}
```

---

Enter 10 numbers:  
4 56 23 89 45 9 34 68 23 67

---

Sum is: 418  
Average is: 41.8

---

used variables: `arr[]`

---

Time Complexity:  $O(N)$

---

Reference : [Link for the Problem](#)

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### Problem Statement 3:

Design and develop a static web page using HTML for following requirement.  
Access it locally and in LAN using web server.

It should have following sections:

1. Any three quotes from <https://www.brainyquote.com/> with the name of person who quoted it.

It should have following tags:

1. Use semantic tags appropriately (<section>, <header>, <footer>, <article>, <aside> and <nav>)
2. Use <blockquote> and <quote> tags.
3. Use <h1> to <h6> tags at least once.
4. Use single line break tag.
5. Use thematic grouping for different sections using <hr> tag.
6. Add the reference link using <a> tag.

**Ans:**

**Code:**

Sublime Text (UNREGISTERED) - 20198TECS00064\_5B\_PL3\_P53.html (PL3 Assignment)

File Edit Selection Find View Goto Tools Project Preferences Help

FOLDERS

- PL3 Assignment
  - Practical-1
  - Practical-2
  - Practical-3
  - Practical-4
  - Practical-5
  - Practical-5A
  - 20198TECS00064\_5B\_PL3\_P53.html

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="UTF-8" />
5 <title>Daily Quotes</title>
6 </head>
7 <body>
8 <header style="text-align: center">
9 <h1>Quotes For Life!</h1>
10 </header>
11 <br />
12 <hr />
13 <section>
14 <blockquote>
15 <h2>
16 <q>
17 Let us sacrifice our today so that our children can have a better tomorrow.
18 </q>
19 </h2>
20 <aside>
21 Quoted By:
22 <em>
23 A. P. J. Abdul Kalam
24 </em>
25 </aside>
26 <br />
27 <a href="https://www.brainyquote.com/quotes/a_p_j_abdul_kalam_178504">
28 https://www.brainyquote.com/quotes/a_p_j_abdul_kalam_178504
29 </a>
30 </blockquote>
31 <br />
32 <hr />
33 <blockquote>
34 <h2>
35 <q>
36 The essence of all religions is one. Only their approaches are different.
37 </q>
38 </h2>
39 <aside>
40 Quoted By:

```

Line 8, Column 40

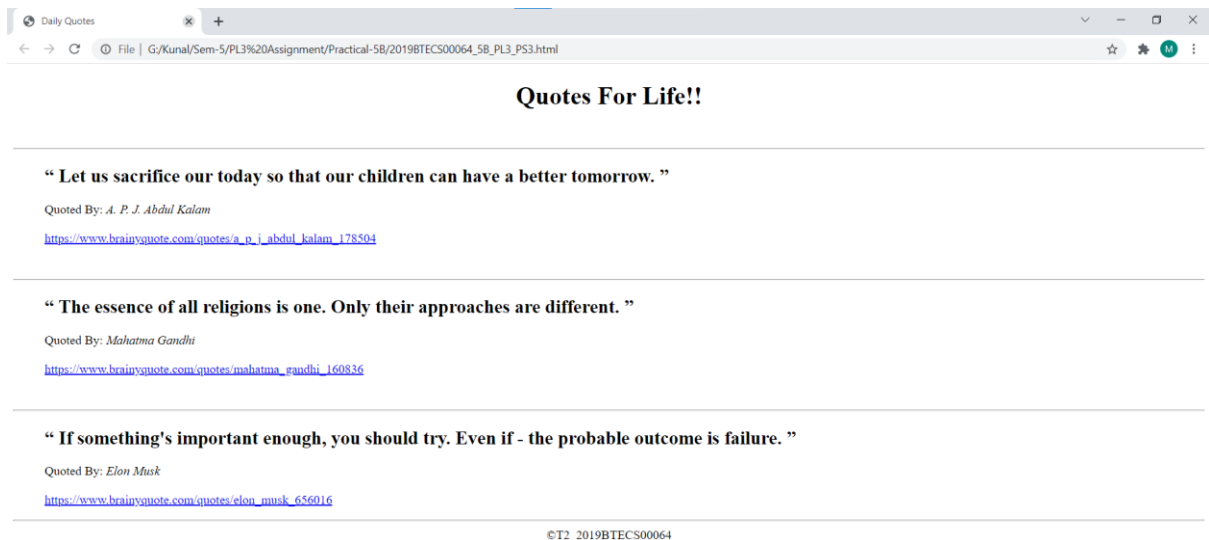
Images 2 HTML

```

38      </h2>
39      <aside>
40        Quoted By:
41        <em>
42          Mahatma Gandhi
43        </em>
44      </aside>
45      <br />
46      <a href="https://www.brainyquote.com/quotes/mahatma_gandhi_160836">
47        https://www.brainyquote.com/quotes/mahatma_gandhi_160836
48      </a>
49    </blockquote>
50    <br />
51    <hr />
52    <blockquote>
53      <h2>
54        <q>
55          If something's important enough, you should try. Even if - the probable outcome is failure.
56        </q>
57      </h2>
58      <aside>
59        Quoted By:
60        <em>
61          Elon Musk
62        </em>
63      </aside>
64      <br>
65      <a href="https://www.brainyquote.com/quotes/elon_musk_656016">
66        https://www.brainyquote.com/quotes/elon_musk_656016
67      </a>
68    </blockquote>
69  </section>
70  <hr />
71  <footer style="text-align: center">
72    &copy;T2_2019BTECS00064
73  </footer>
74 </body>
75 </html>

```

## Output:



## Github Link:

<https://github.com/KunalKadam64/PL3-Practicals/tree/main/Practical-5B>

