Schematic Investment Plan Calculator

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1. Introduction

In the dynamic landscape of personal finance, planning and managing investments require precision and foresight. To aid in this endeavor, the Schematic Investment Plan Calculator emerges as a powerful tool, offering individuals a structured approach to financial decision-making.

- Purpose:

The primary purpose of the Schematic Investment Plan Calculator is to empower users with the ability to visualize and strategize their investment journey. It serves as a virtual compass, guiding users through the intricate terrain of financial planning, helping them set realistic goals and chart a course towards financial success.

- Functionality:

At its core, the calculator operates on principles of financial mathematics and investment theory. Users input key variables such as initial investment amount, expected rate of return, time horizon, and periodic contributions. Leveraging these inputs, the calculator generates comprehensive projections, illustrating potential growth trajectories and outcomes over time.

- Benefits:

The benefits of utilizing the Schematic Investment Plan Calculator are manifold. Firstly, it fosters clarity and understanding, demystifying complex financial concepts and enabling users to make informed decisions. Additionally, it serves as a risk mitigation tool, allowing users to assess the impact of various scenarios and adjust their strategies accordingly. Moreover, by promoting disciplined saving and investment habits, it cultivates a sense of financial responsibility and resilience.

In essence, the Schematic Investment Plan Calculator is more than just a tool; it is a catalyst for financial empowerment and security. Whether you're a seasoned investor or a novice enthusiast, harnessing its capabilities can pave the way for a brighter financial future.

a. Project Objectives-

i. Financial Calculation- The reason behind developing a calculator is to make it easy for people to calculate how much growth will be there in the money they are investing for a particular time period over some amount of interest and the compounding gap because calculating such values manually is a very time taking process.

ii. Testing Financial Knowledge- The reason for developing a small quiz on finance will help people to test their basic knowledge about finance.
As having financial knowledge is very important nowadays.

iii. Landing Page- The landing page will give people a brief about our topic which is "Schematic Investment Plan" , its advantages , disadvantages etc.

b. Background of the Project

Investing money is nowadays very prevalent among people of all ages. So developing a calculator which will give them the growth they will expect on investing a particular amount of money on a schematic basis.

The schematic investment plan calculator holds immense importance in the realm of personal finance, serving as a guiding light for individuals embarking on their investment journey. It acts as a beacon of clarity in a sea of financial complexity ,providing users with a clear roadmap to articulate their goals and plot a course toward financial security. By simulating various investment scenarios and projecting potential outcomes, the calculator empowers users to assess risks, optimize decisions, and adapt strategies to changing circumstances. Its role extends beyond mere number-crunching; it serves as an educational tool, fostering financial literacy and confidence among users. With its ability to streamline the planning process, save time, and mitigate risks, the schematic investment plan calculator becomes an indispensable companion for anyone seeking to build wealth, achieve financial independence, and realize their long-term financial aspirations.

Hence on the basis of the above things we have developed a website on the basis solving this needs amongst the people . The website aims to provide a centralized platform for simplifying the schematic investment process.

c. Operational Environment

The operational environment for an schematic investment plan includes HTML, CSS, JavaScript. Through HTML we structured the sites and CSS is used for its designing and styling purposes. JavaScript is used for user interface and interaction and is one of the important elements of front end development.

2. System Analysis

a. Software requirement specification-

i. Web Browser- A web browser is a software used to browse websites. It retrieves web page files from a server in response to user requests and displays them on the screen. Browsers are utilized across various devices such as desktop computers ,laptops, tablets and smartphones. A browser to run the files (html files containing javascript and css). To check what is the actual outcome of the code that has been written.

ii. Operating System- It is compatible with any operating system such as Windows, Linux and others.

iii. Technologies used in front end development- HTML, CSS, JavaScript is Used to create the user and client interface for the smooth running of website.

iv. Non Functional Consideration-

Hosting- Here we have a hosting platform where user can easily see our Site.

Browsers and devices- It lists down what browsers and devices the Visitors and customers use it.

Maintenance and support- Its sees that whether the website requires Ongoing maintenance or not and support to maintain security and ensure

It continues performing at its best.

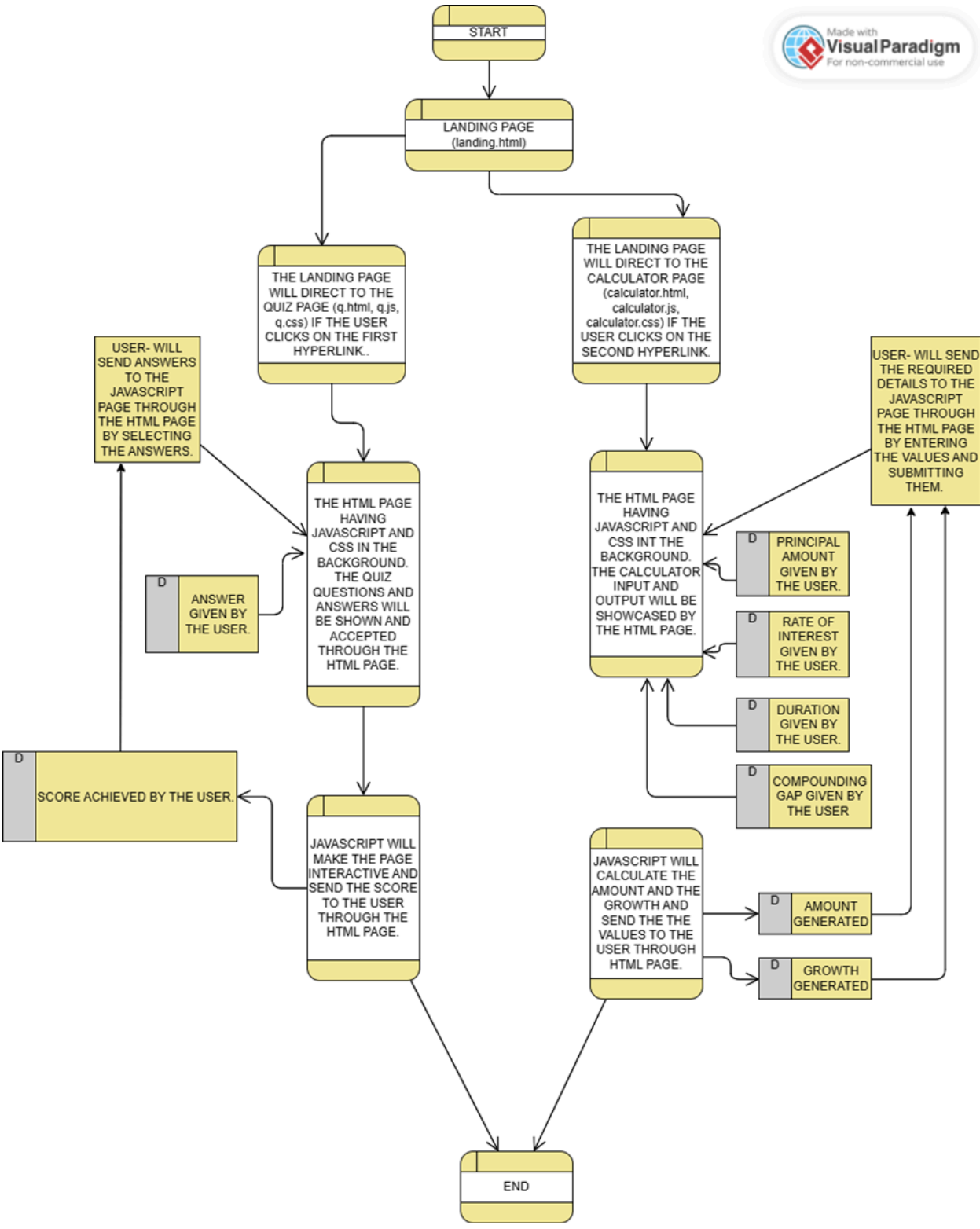
b.Software tools used-

VS Code- It stands for Visual Studio Code .It is a software for editing source code created by Microsoft, compatible with Windows, Linux,and macOS. Its functionalities encompass debugging assistance,syntax highlighting,smart code suggestions, code snippets, code restructuring tools, and integrated Git version control. It's a code editor which we have used in this to edit the code and also for debugging the code .An editor is essential when we are making a project.

Web Browser- It is used for accessing the website as it will be shown and displayed there .

3. System Design

b. Data Flow Diagram-



4. System Implementation

c. Module Description-

Our schematic investment plan calculator website contains three modules namely landing page, quiz and calculator.

i. Landing.html- This page gives an introduction to our topic “Schematic Investment Plan” . This page also contains two hyperlinks which direct to two different html pages one is “q.html” it is the html page for quiz and the other one is “calculator.html” it is the html page for calculator.

This is the first page that a user will visit helping the user with the information regarding the website and what it is about and allowing user to calculate their the investment plan and growth rate with the help of the link provided at the bottom of the page for the schematic investment plan calculation and offering them the quiz to know how far they have knowledge about this resources on investment.

ii. q.html- This page contains the outline for the quiz with a source tag for “q.js”.

- q.js- This page provides the interactivity between the q.html and q.js so that the user that gives the input data can proceed for its output using q.js.

iii. calculator.html- This page contains the outline for the calculator with a source tag for “calculator.js”.

- calculator.js- this page provides the interactivity between the calculator.html and calculator.js so that users can do the calculation which is implemented and proceeded by javaScript.

d. Screenshots

This is how the quiz page looks like.

This is the output of the calculator.

Click here if you want to check your financial knowlegde.

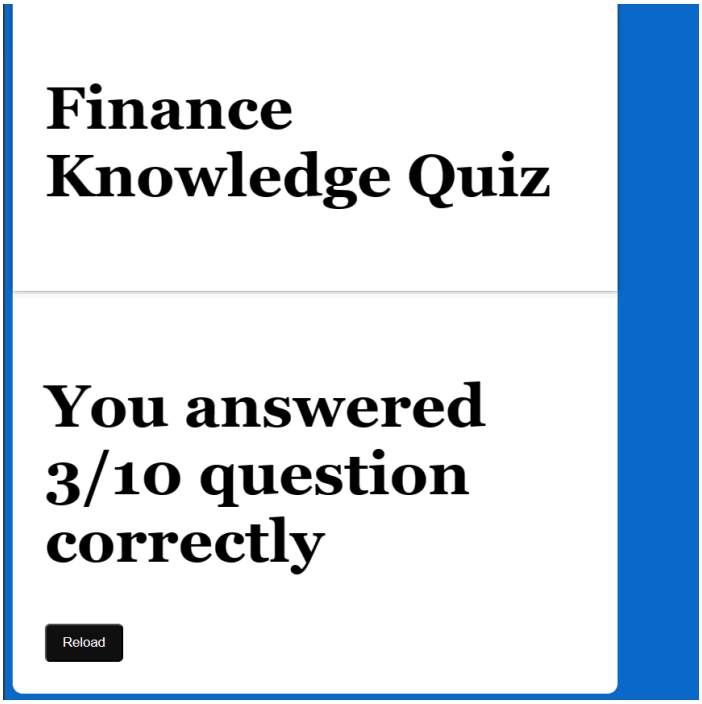
Click here to calculate the growth of your money invested.

This is how the href lines of the landing page looks like.

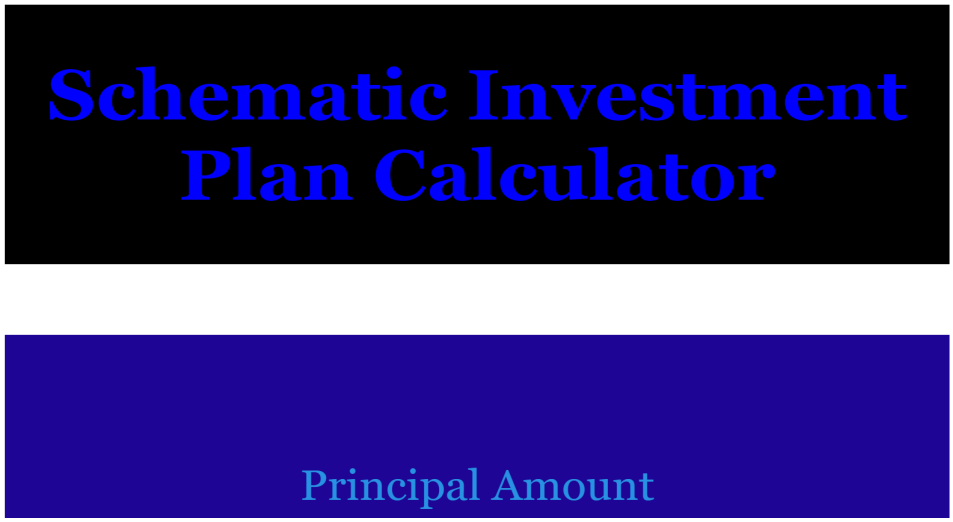
amounts in a company over a long-term period.

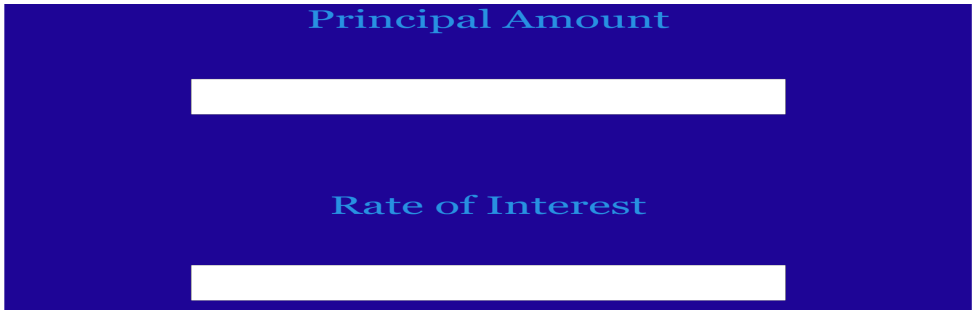
Advantages

's provide investors with a variety of benefits. The first, and most obviou

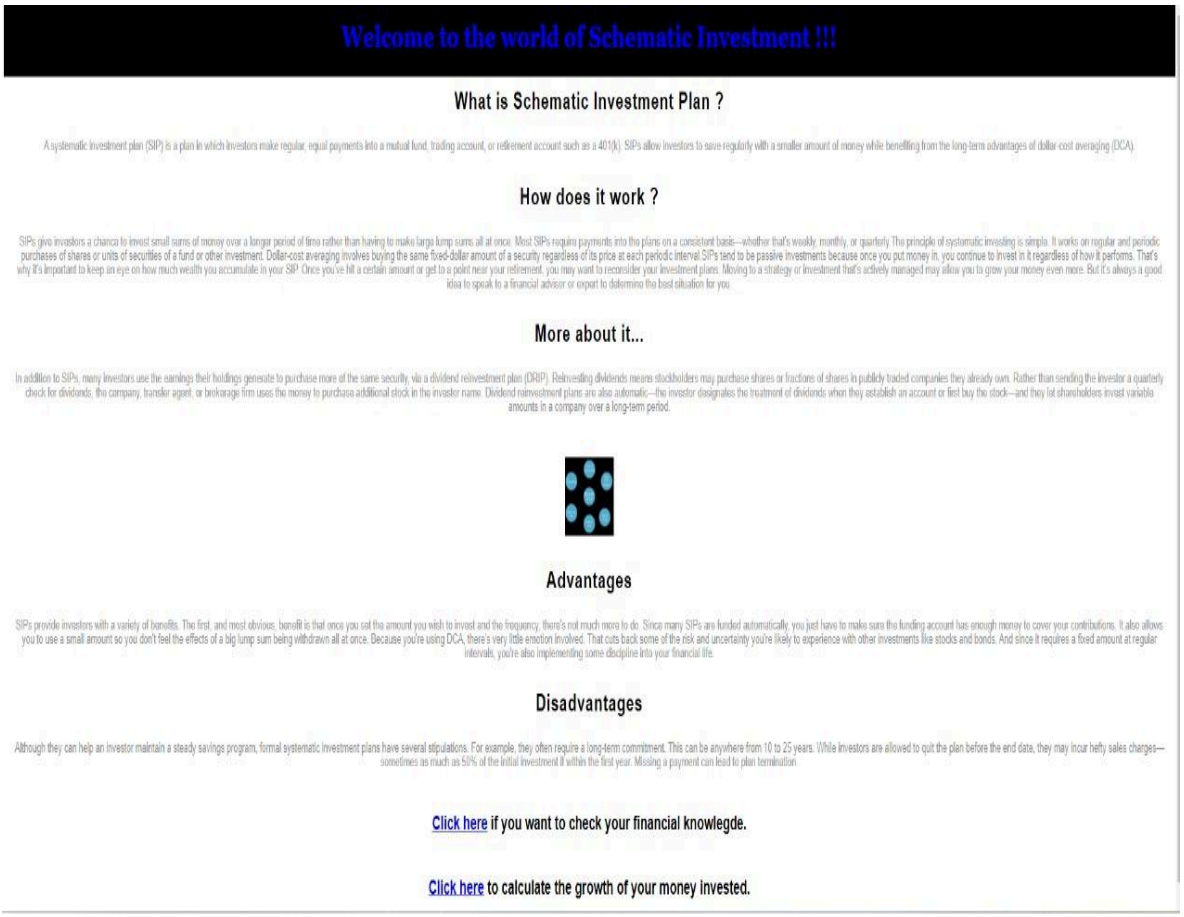


This is the output of the quiz.





This is the page of the schematic investment calculator.



This is the main website page.

5. Appendix

The files are-

- Landing.html
- q.html
- calculator.html
- q.js
- calculator.js

The github link is -

https://github.com/ucse22016/WT-Project

6. Code

landing.html:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Schematic Investment Plan</title>
    <meta charset="UTF-8">
    <style>

     h1 {
       color: blue;
       font-size:100px;
       margin: 0px;
       background-color: black;
       text-align: center;
       margin-top: 27px;
       margin:auto;
       font-family: Georgia, serif;
       padding-left: 50px;
       padding-right: 50px;
       padding-bottom: 70px;
       padding-top: 70px;


     }
     p {
       color: #999999;
       margin: 0px;
```

```
  text-align: center;
  font-size: 40px;
  margin:auto;
  font-family: "Gill Sans", sans-serif;
  padding-left: 50px;
  padding-right: 50px;
  padding-top: 60px;
  padding-bottom: 60px;


}
h3 {
  color: black;
  margin: 0px;
  background-color: white;
  text-align: center;
  font-size: 75px;
  vertical-align:left;
  margin : auto;
  font-family: "Gill Sans", sans-serif;
  padding-left: 50px;
  padding-right: 50px;
  padding-bottom: 60px;
  line-height:2px;
  letter-spacing: 2px;
  padding-top: 60px;

}
img {
  height : 250px;
  width: 250px;
  float:center;
  padding-bottom: 60px;
  padding-top: 60px;

}
h4 {
```

```
        color: black;
        margin: 0px;
        background-color: white;
        text-align: center;
        font-size: 60px;
        vertical-align:left;
        margin: auto;
        font-family: "Gill Sans", sans-serif;
        padding-left: 50px;
        padding-right: 50px;
        padding-bottom: 60px;
        padding-top: 60px;
      }
      </style>
      </style>
  </head>
  <body>
    <h1>Welcome to the world of Schematic Investment !!!</h1>
    <br>
    <h3>What is Schematic Investment Plan ?</h3>
    <p>
      A systematic investment plan (SIP) is a plan in which investors make regular,
      equal payments into a mutual fund, trading account, or retirement account
      such as a 401(k). SIPs allow investors to save regularly with a smaller amount
          of money while benefiting from the long-term advantages of dollar-cost
averaging (DCA).
    </p>
    <br>
    <h3>How does it work ?</h3>
    <p>
        SIPs give investors a chance to invest small sums of money over a longer
period of time
        rather than having to make large lump sums all at once. Most SIPs require
payments into
            the plans on a consistent basis—whether that's weekly, monthly, or
quarterly.The principle
```

of systematic investing is simple. It works on regular and periodic purchases of shares or
units of securities of a fund or other investment. Dollar-cost averaging involves buying the
same fixed-dollar amount of a security regardless of its price at each periodic interval.SIPs
tend to be passive investments because once you put money in, you continue to invest in it regardless
of how it performs. That's why it's important to keep an eye on how much wealth you accumulate in your
SIP. Once you've hit a certain amount or get to a point near your retirement, you may want to reconsider
your investment plans. Moving to a strategy or investment that's actively managed may allow you to grow
your money even more. But it's always a good idea to speak to a financial advisor or expert to determine
the best situation for you.

<h3>More about it...</h3>

In addition to SIPs, many investors use the earnings their holdings generate to purchase more
of the same security, via a dividend reinvestment plan (DRIP). Reinvesting dividends means
stockholders may purchase shares or fractions of shares in publicly traded companies they already
own. Rather than sending the investor a quarterly check for dividends, the company, transfer agent,
or brokerage firm uses the money to purchase additional stock in the investor name. Dividend reinvestment
plans are also automatic—the investor designates the treatment of dividends when they establish an account
or first buy the stock—and they let shareholders invest variable amounts in a company over a long-term period.


```
<div style="text-align: center">
<img src="SIP.jpg" width="450px" height="450px">
</div>
<br>
<h3>Advantages</h3>
<p>
  SIPs provide investors with a variety of benefits. The first, and most obvious, benefit is that once you set
  the amount you wish to invest and the frequency, there's not much more to do. Since many SIPs are funded
  automatically, you just have to make sure the funding account has enough money to cover your contributions.
  It also allows you to use a small amount so you don't feel the effects of a big lump sum being withdrawn all at once.
  Because you're using DCA, there's very little emotion involved. That cuts back some of the risk and uncertainty you're
  likely to experience with other investments like stocks and bonds. And since it requires a fixed amount at regular
  intervals, you're also implementing some discipline into your financial life.
</p>
<br>

<h3>Disadvantages</h3>
<p>
  Although they can help an investor maintain a steady savings program, formal systematic investment
  plans have several stipulations. For example, they often require a long-term commitment. This can
  be anywhere from 10 to 25 years. While investors are allowed to quit the plan before the end date,
  they may incur hefty sales charges—sometimes as much as 50% of the initial investment if within the
  first year. Missing a payment can lead to plan termination.
</p>
<br>
  <h4><a href="q.html">Click here</a> if you want to check your financial knowledge.</h4>
```

```
      <br>
        <h4><a href="calculator.html">Click here</a> to calculate the growth of your
money invested.</h4>
  </body>
</html>
```

q.html:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Quiz</title>
    <style>

      body {
        background: rgb(14, 108, 203);
        font-family: Georgia, serif;
        align-items: center;
        height: 100px;
      }
      .quizcontainer {
        background: #fff;
        border-radius: 10px;
        max-width: 600px;
        width: 100%;
      }

      .quizheader {
       align-items: center;
       padding: 2rem 2rem;
       box-shadow: 0px 0px 5px rgba(0, 0, 0, 0.5);
       border-top-left-radius: 10px;
       border-top-right-radius: 10px;
       font-size:60px;
      }
```

```
h2 {
  font-size:60px;
}

 .quizheader h3{
 font-size:100px;
  }

  .quizheader p {
   background: #111;
   padding: 0.4rem 1rem;
   color: #fff;
   border-radius: 5px;
   font-size:60px;
  }

  .quizbody {
  padding: 2rem 2rem;
  }
  .quizbody h3 {
   padding: 1rem 0;
   font-size: 2rem;
   font-weight: 500;
   text-align: center;
   margin: 0;
  }
  .quizbody ul {
   list-style: none;
   padding: 0;
  }
  .quizbody ul li {
   margin: 1rem 0;
   font-size: 1rem;
   border: 1px solid #aab7b8;
   padding: 0.7rem;
   border-radius: 5px;
   cursor: pointer;
```

```
    }
    .quizbody ul li label {
     cursor: pointer;
     padding: 0 0.4rem;
    }
    .quizconductor {
     align-items: center;
     padding: 1rem 2rem;
     box-shadow: 0px 0px 5px rgba(0, 0, 0, 0.5);
    }
    .quizconductor button {
     padding: 0.6rem 1.5rem;
     background: #111;
     cursor: pointer;
     border-radius: 5px;
     color: #fff;
    }
    .quizbody button {
     padding: 0.6rem 1rem;
     background: #111;
     cursor: pointer;
     border-radius: 5px;
     color: #fff;
    }
   </style>
</head>
<body>
   <div class="quizcontainer" id="quiz">
     <div class="quizheader">
      <h2 class="headertxt">Finance Knowledge Quiz</h2>
     </div>
     <div class="quizbody">
      <h3 id="question">Question</h3>
      <ul>
       <li>
        <input type="radio" name="answer" id="a" class="answer" />
        <label for="a" id="atext">Questions</label>
```

```
            </li>
            <li>
              <input type="radio" name="answer" id="b" class="answer" />
              <label for="b" id="btext">Questions</label>
            </li>
            <li>
              <input type="radio" name="answer" id="c" class="answer" />
              <label for="c" id="ctext">Questions</label>
            </li>
            <li>
              <input type="radio" name="answer" id="d" class="answer" />
              <label for="d" id="dtext">Questions</label>
            </li>
          </ul>
        </div>
        <div class="quizconductor">
          <div class="details"></div>
          <button type="button" id="btn1">Submit</button>
        </div>
      </div>
      <script src="q.js"></script>
  </body>
</html>
```

q.js:

```
const Data = [
{
  question: "Loans from money lenders are",
  a: "With High rate of interest",
  b: "No proper accounting",
  c: "No transparency",
  d: "All of above",
  correct_answer: "d"
},
{
  question: "Life insurance means",
  a: "Insurance of human",
```

```
  b: "Insurance of life of human and Cattle",
  c: "Insurance of Life of Machines",
  d: "All of above",
  correct_answer: "a"
},
{
  question: "Bank Pass Book is",
  a: "Issued by Bank",
  b: "Contains transaction details of Bank account",
  c: "Shows balance in account",
  d: "All of above",
  correct_answer: "d"
},
{
  question: "Currency notes are issued by",
  a: "RBI",
  b: "NABARD",
  c: "Public sector banks",
  d: "Central Government",
  correct_answer: "a"
},
{
  question: "What is RuPay Debit Card?",
  a: "Domestic debit card",
  b: "Introduced by National Payments Corporation of India",
  c: "Accepted at all ATMs & PoS machines",
  d: "All of above",
  correct_answer: "d"
},
{
  question: "RTGS stands for",
  a: "Real Time Gross Settlement ",
  b: "Ready Time Gross Settlement ",
  c: "Ready Time Grocery Settlement",
  d: "None of Above",
  correct_answer: "a"
},
```

```
{
  question: "In Recurring Deposits,",
  a: "a fixed sum is deposited every month",
  b: "period of deposit is a fixed tenure",
  c: "interest is paid at FDR rate",
  d: "All of above",
  correct_answer: "d"
},
{
  question: "NEFT stands for",
  a: "National Electric Fund Transfer",
  b: "National Electronic Fund Transfer",
  c: "National Electrical Fund Transfer",
  d: "None of Above",
  correct_answer: "b"
},
{
  question: "PAN means",
  a: "A kind of utensil",
  b: "Primary Account Number",
  c: "Permanent Account Number",
  d: "None of above",
  correct_answer: "c"
},
{
  question: "Under PMSBY, accidental death claim is available for:",
  a: "Rs.1 lac",
  b: "Rs.2 lac",
  c: "Rs.3 lac",
  d: "None of above",
  correct_answer: "b"
}
];

const quiz = document.querySelector(".quizbody");
const answer_element = document.querySelectorAll(".answer");
const question = document.getElementById("question");
```

```
const conductorel = document.querySelector(".quizconductor");
const Detailel = document.querySelector(".details");
const liel = document.querySelector("ul li");

const a_1 = document.getElementById("atext");
const b_1 = document.getElementById("btext");
const c_1 = document.getElementById("ctext");
const d_1 = document.getElementById("dtext");
const Submit = document.getElementById("btn1");

let current = 0;
let score = 0;

load();

function load() {
 deselect();
 const currentData = Data[current];
 question.innerText = currentData.question;
 a_1.innerText = currentData.a;
 b_1.innerText = currentData.b;
 c_1.innerText = currentData.c;
 d_1.innerText = currentData.d;
}


function deselect() {
 answer_element.forEach((answer_element) => {
  answer_element.checked = false;
 });
}


function Selected() {
 let answer;
 answer_element.forEach((answer_elements) => {
  if (answer_elements.checked) {
```

```
  answer = answer_elements.id;
 }
});
 return answer;
}

Submit.addEventListener("click", function () {
 const answers = Selected();

 if (answers) {
  if (answers === Data[current].correct_answer) {
   score++;
  }
  next();
 }
});


function next() {
 current++;

 if (current < Data.length) {
  load();
 } else {
      quiz.innerHTML = `<h2>You answered ${score}/${Data.length} question correctly</h2>
   <button type="button" onclick="location.reload()">Reload</button>
   `;
 }
}
```

calculator.html:

```
<!DOCTYPE html>
<html>
   <head>
      <title>Schematic Investment Plan Calculator</title>
      <meta charset="UTF-8">
```

```
<style>
   h2 {
   color: blue;
   font-size:100px;
   margin: 0px;
   background-color: black;
   text-align: center;

   margin: 100px;
   font-family: Georgia, serif;
   padding-left: 50px;
   padding-right: 50px;
   padding-bottom: 70px;
   padding-top: 70px;
   }
 table {
   color: rgb(40, 147, 228);
   font-size:100px;
   padding-left: 50px;
   padding-right: 50px;
   margin:100px;
   background-color:rgb(32, 8, 151);
   text-align: center;


   font-family: Georgia, serif;
   padding-left: 50px;
   padding-right: 50px;
   padding-bottom: 70px;
   padding-top: 70px;
 }
 tr {
   padding-bottom: 70px;
   padding-top: 70px;
   font-family: Georgia, serif;

   text-align: center;
```

```
    margin:100px;

  }
  td {
    padding-bottom: 70px;
    padding-top: 70px;
    font-family: Georgia, serif;

    text-align: center;

    margin:100px;
    padding-left: 50px;
    padding-right: 50px

  }
  input {
    font-size:70px;
    font-family: Georgia, serif;

    text-align: center;
    margin-top:100px;


  }
 select {
    font-size:60px;
    font-family: Georgia, serif;

    text-align: center;

    margin:100px;
 }
 button {
    font-size:60px;

    font-family: Georgia, serif;
```

```
    text-align: center;

    margin:100px;
  }
  label {
    font-size:60px;

  }
  div {
  font-size:80px;
    font-family: Georgia, serif;
    background-color:rgb(56, 4, 108);
    text-align: center;

    margin:100px;

  }
  </style>
</head>
<body>
  <h2>Schematic Investment Plan Calculator</h2>
  <table>
    <tr>
      <td>
        <label for="principal">Principal Amount</label>
        <input type="number" id="principal" name="p">
      </td>
    </tr>
    <tr>
      <td>
        <label for="rate">Rate of Interest</label>
        <input type="number" id="rate" name="r">
      </td>
    </tr>
    <tr>
      <td>
```

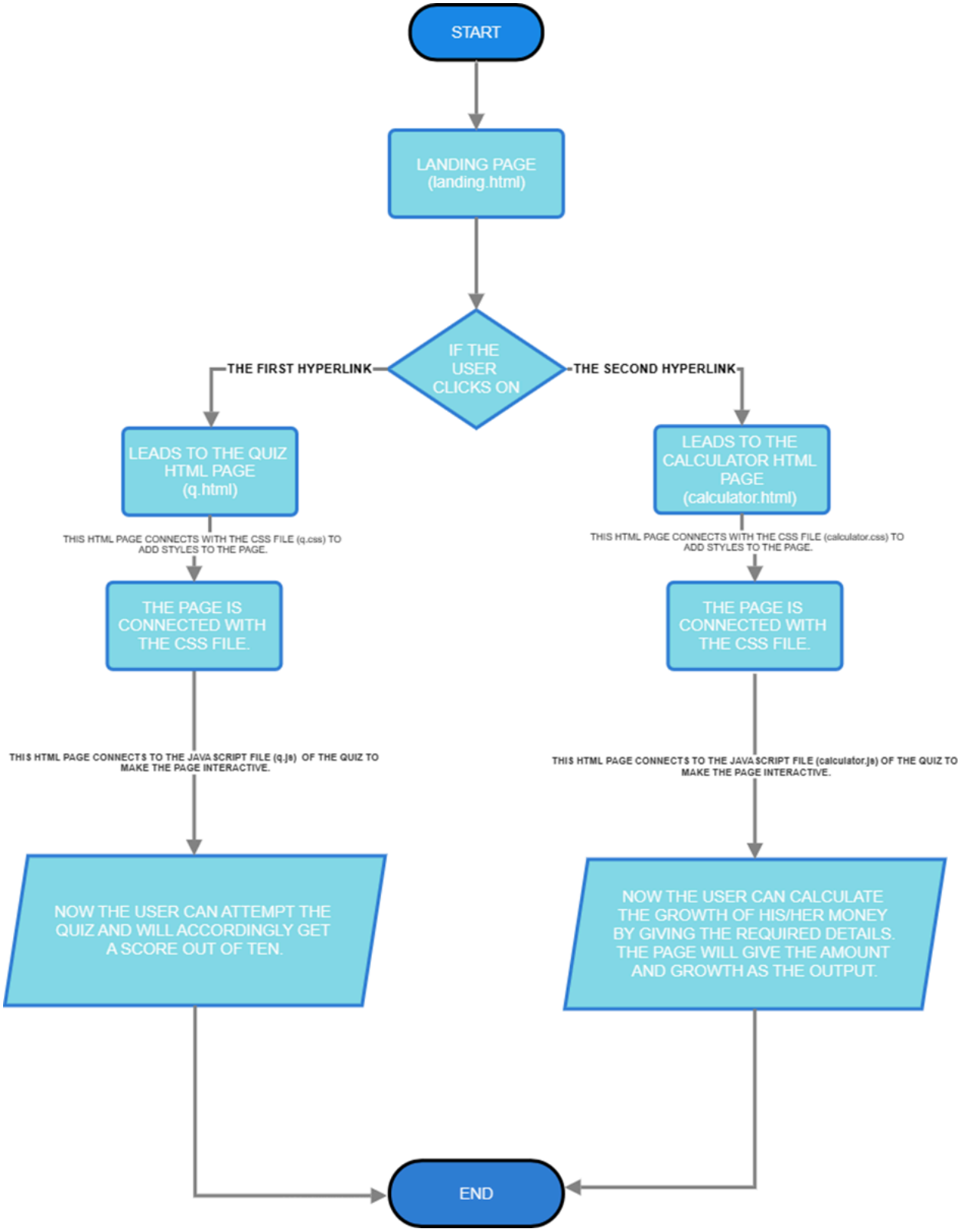
```
            <label for="time"> Duration</label>
            <input type="number" id="time" name="t">
          </td>
        </tr>
        <tr>
          <td>
            <select id="compound">
              <option value="1">Annualy</option>
              <option value="4">Quartely</option>
              <option value="2">Semiannualy</option>
              <option value="12">Monthly</option>
            </select>
          </td>
        </tr>
        <tr>
          <td>
            <button onclick="calculate()">Submit</button>
          </td>
        </tr>
      </table>
      <div id="res"></div>
      <script src="calculator.js"></script>
  </body>
</html>
```

calculator.js:

```
function calculate()
{
  let result;
  let i;
  let growth;
  var principal_value= document.getElementById("principal").value;
  var rate_value= document.getElementById("rate").value;
  var time_value= document.getElementById("time").value;
  var compound_value= document.getElementById("compound").value;
  for(i=1; i<=time_value; i++)
  {
```

```
        result=  principal_value* Math.pow(1 + ((rate_value / 100) / compound_value),
compound_value * i);
       result=result.toFixed(2);
       growth=result-principal_value;
    }
    document.getElementById("res").innerHTML="Amount : "+result+"</br>Growth :
"+growth.toFixed(2);
}
```

7. Flow Chart


START
LANDING PAGE (landing.html)
IF THE USER CLICKS ON
THE FIRST HYPERLINK
THE SECOND HYPERLINK
LEADS TO THE QUIZ HTML PAGE (q.html)
LEADS TO THE CALCULATOR HTML PAGE (calculator.html)
THIS HTML PAGE CONNECTS WITH THE CSS FILE (q.css) TO ADD STYLES TO THE PAGE.
THIS HTML PAGE CONNECTS WITH THE CSS FILE (calculator.css) TO ADD STYLES TO THE PAGE.
THE PAGE IS CONNECTED WITH THE CSS FILE.
THE PAGE IS CONNECTED WITH THE CSS FILE.
THIS HTML PAGE CONNECTS TO THE JAVASCRIPT FILE (q.js) OF THE QUIZ TO MAKE THE PAGE INTERACTIVE.
THIS HTML PAGE CONNECTS TO THE JAVASCRIPT FILE (calculator.js) OF THE QUIZ TO MAKE THE PAGE INTERACTIVE.
NOW THE USER CAN ATTEMPT THE QUIZ AND WILL ACCORDINGLY GET A SCORE OUT OF TEN.
NOW THE USER CAN CALCULATE THE GROWTH OF HIS/HER MONEY BY GIVING THE REQUIRED DETAILS. THE PAGE WILL GIVE THE AMOUNT AND GROWTH AS THE OUTPUT.
END