



Chaitanya Bharathi Institute of Technology

Medication Reminder

A Internship Report

Submitted in fulfilment of the requirements for the award of degree
B.E. in

COMPUTER SCIENCE AND ENGINEERING

By

Team 30
16/03/22

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ACKNOWLEDGEMENTS

We have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals. I would like to extend my sincere thanks to all of them. It has been great honour and privilege to undergo training and internship at Swecha. We are highly indebted to our mentors for their guidance and constant supervision as well as for providing necessary information regarding the project and also for their support in completing the project. My thanks and appreciations also go to my colleagues and teammates in developing the project and people who have willingly helped me out with their abilities and guidance.

ABSTRACT

Medication Reminder is a web based application which reminds you to take your pills at given time of the day.

In this application user gives name and description of medicine as input and specify the time at which it has to be consumed. Once the time is same as specified time a desktop notification is given out, reminding the person to take medicine. The notification include name of the medicine and description as given by the user like taking medicine after/before the food. In addition it can also remind you to take the water at given time.

The notification has a small icon (pill for medicine and water-bottle for water) which help differentiate the notification of water from that of medicine. For desktop notification we use open source software.

INTRODUCTION

1.1. Problem Definition including the significance and objective

In our day to day, busy schedule we often forget to take our medicines on times, which sometimes could lead to severe consequences. For example if a heart patient skips his/her medication it might lead another possible heart attack.

This App is for anyone who is on medication, which helps them to take medicine on time.

1.2. Methodology

We made a functional web application for mobile as well as desktop that tracks the schedule of your medication and reminds you through push notifications once the time to take the meds has come.

The user enters the details of his medications such as name, description and time at which the med should be taken and adds it to the reminder list and when the clock strikes the target time, the user is prompted.

1.3. Outline of Results

User is able to take medicine on time with the help of this web application.

1.4. Future scope of the project

It can be made into app in which more feature can be added such as ordering the medicines.

LITERATURE SURVEY

Missing a dose or two of your medications may not seem like a big deal, but many medications won't work right if you don't take them when and the way you're supposed to.

Problems It Can Cause:

- You may miss the best window of time
- Your treatment might fail
- You might feel "withdrawal" effects like anxiety, headaches, sleep problems
- Your disease may get harder to treat
- You might face serious complications. For example If you don't take your blood pressure pills for your heart as prescribed, it could raise your chances of a heart attack, a stroke, kidney failure, or other complications.

Thus this project aim to helps people who have difficulty in taking their medication on time.

Tools and Technologies used :

Software Requirements:

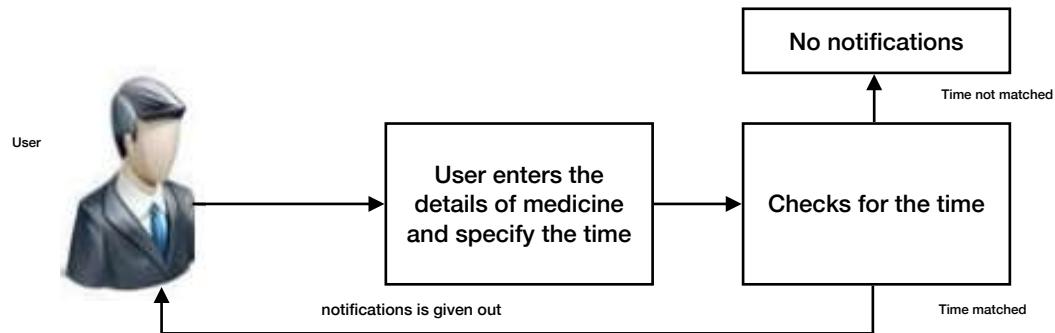
- Operating System: Any OS with python installed
- Technology used
 - HTML
 - CSS
 - JavaScript

Hardware Requirements:

- Monitor Resolution 1024 X 768 or higher
- Processor (CPU) with 2 gigahertz (GHz) frequency
- Internet Connection Broadband
- A minimum of 2GB RAM

DESIGN OF PROPOSED SYSTEM

Architecture:



In this architecture once user executes the file he creates the instance of time need to take medicine, then the application looks for the time continuously when the time matches the specified the users is given he prompt.

App functions:

- Add medicines and other supplements to reminder list.
- Add description to remember additional details of the drug.
- Add the expiry date function that erases the medicine when it expires.
- Notify the user at proper time to take the pill.
- Notify the user about the expiry date of a medicine.
- CRUD operations

IMPLEMENTATION OF THE PROPOSED SYSTEM

Front End:

```
<!DOCTYPE html>
<html>
  <head>
    <title> Medication Reminder App</title>
    <link rel="stylesheet" href="styles.css" />
  </head>

  <body>
    <nav class="navbar">
      <h1>Medication Reminder</h1>
      <p>An app that takes care of you!</p>
    </nav>
    <header class="flex-box">
      <section class="input-form container">
        <h2>Add new Medicine</h2>
        <form
          onsubmit="event.preventDefault();onFormSubmit();"
          autocomplete="off"
        >
          <div>
            <label>Medicine Name*</label>
            <label class="validation-error hide" id="medNameValidationError">
              This field is required.
            </label>
            <input type="text" name="medName" id="medName" />
          </div>
          <div>
            <label>Description</label>
            <input type="text" name="medDesc" id="medDesc" />
          </div>
          <div>
            <label>When to take?</label>
            <input type="time" name="medTime" id="medTime" />
          </div>
          <div>
            <label>Expiry Date</label>
            <input
              type="text"
              name="medDate"
              id="medDate"
              placeholder=" [yyyy-mm-dd]"
            />
          </div>
          <div class="form-action-buttons">
            <input type="submit" value="ADD MEDICINE" id="alarm" />
          </div>
        </form>
      </section>
    </header>
    <div class="container">
      <h2>List of your Medicines</h2>
      <table>
        <tr>
          <td>
```

```
<table class="list" id="medList">
<thead>
<tr>
<th>Medicine</th>
<th>Description</th>
<th>Expiry Date</th>
<th>Time of Consumption</th>
<th></th>
</tr>
</thead>
<tbody></tbody>
</table>
</td>
</tr>
</table>
</div>
</header>

<script src="script.js"></script>
<script
src="https://code.jquery.com/jquery-3.6.0.min.js"
integrity="sha256-/xUj+30JU5yExlq6GSYGHk7tPXikynS7ogEvDej/m4="
crossorigin="anonymous"
></script>
<script src="push.min.js"></script>
<script src="serviceWorker.min.js"></script>
</body>
</html>
```

Logic:

```
var selectedRow = null
const alarm = document.getElementById('alarm');

alarm.addEventListener('click', setAlarm);

function setAlarm(e) {
    //e.preventDefault();
    const time = document.getElementById('medTime').value;
    const med = document.getElementById('medName').value;
    const exp = document.getElementById('medDate');
    expDate = new Date(exp.value);
    console.log(`Expires at ${expDate}`);
    now = new Date();

    let timeToExp = expDate - now;

    if(timeToExp>=0) {
        setTimeout(() => {
            Push.create(`Oh no! ${med} has expired!`, {
                body: "You should not consume expired medicines.",
                icon: '/icon.png',
                timeout: 12000,
                onClick: function () {
                    window.focus();
                    this.close();
                }
            });
        }, timeToExp);
    }

    var inter = setInterval(function(){
        currentTime = getDateTime();
        if (String(time) == String(currentTime)) {

            if (med == "Water") {
                Push.create(`It's time for Water!`, {
                    body: "Drink water to stay hydrated.",
                    icon: '/water.png',
                    timeout: 12000,
                    onClick: function () {
                        window.focus();
                        this.close();
                    }
                });
            }

            else {
                Push.create(`It's time for ${med}!`, {
                    body: "Hey mate! Take your medicine. Don't forget to drink some water too.",
                    icon: '/icon.png',
                    timeout: 12000,
                    onClick: function () {
                        window.focus();
                        this.close();
                    }
                });
            }
        }

        clearInterval(inter);
    })
}
```

```

        }, 1000);
    }

    function getDateTime() {
        var now      = new Date();
        var year     = now.getFullYear();
        var month    = now.getMonth()+1;
        var day      = now.getDate();
        var hour     = now.getHours();
        var minute   = now.getMinutes();
        var second   = now.getSeconds();
        if(month.toString().length == 1) {
            month = '0'+month;
        }
        if(day.toString().length == 1) {
            day = '0'+day;
        }
        if(hour.toString().length == 1) {
            hour = '0'+hour;
        }
        if(minute.toString().length == 1) {
            minute = '0'+minute;
        }
        if(second.toString().length == 1) {
            second = '0'+second;
        }
        var dateTime = hour+':'+minute;
        return dateTime;
    }

    function onFormSubmit() {
        if (validate()) {
            var formData = readFormData();
            if (selectedRow == null)
                insertNewRecord(formData);
            else
                updateRecord(formData);
            resetForm();
        }
    }

    function readFormData() {
        var formData = {};
        formData["medName"] = document.getElementById("medName").value;
        formData["medDesc"] = document.getElementById("medDesc").value;
        formData["medDate"] = document.getElementById("medDate").value;
        formData["medTime"] = document.getElementById("medTime").value;
        return formData;
    }

    function insertNewRecord(data) {
        var table = document.getElementById("medList").getElementsByTagName('tbody')[0];
        var newRow = table.insertRow(table.length);
        cell1 = newRow.insertCell(0);
        cell1.innerHTML = data.medName;
        cell2 = newRow.insertCell(1);
        cell2.innerHTML = data.medDesc;
        cell3 = newRow.insertCell(2);
        cell3.innerHTML = data.medDate;
        cell4 = newRow.insertCell(3);
        cell4.innerHTML = data.medTime;
        cell4 = newRow.insertCell(4);
        cell4.innerHTML = `<a onClick="onEdit(this)"></a>`;
    }
}

```

```

        <a onClick="onDelete(this)">
    class="icon"></a>` ;
}

function resetForm() {
    document.getElementById("medName").value = "";
    document.getElementById("medDesc").value = "";
    document.getElementById("medDate").value = "";
    document.getElementById("medTime").value = "";
    selectedRow = null;
}

function onEdit(td) {
    selectedRow = td.parentElement.parentElement;
    document.getElementById("medName").value = selectedRow.cells[0].innerHTML;
    document.getElementById("medDesc").value = selectedRow.cells[1].innerHTML;
    document.getElementById("medDate").value = selectedRow.cells[2].innerHTML;
    document.getElementById("medTime").value = selectedRow.cells[3].innerHTML;
}
function updateRecord(formData) {
    selectedRow.cells[0].innerHTML = formData.medName;
    selectedRow.cells[1].innerHTML = formData.medDesc;
    selectedRow.cells[2].innerHTML = formData.medDate;
    selectedRow.cells[3].innerHTML = formData.medTime;
}

function onDelete(td) {
    if (confirm('Are you sure to delete this Medicine ?')) {
        row = td.parentElement.parentElement;
        document.getElementById("medList").deleteRow(row.rowIndex);
        resetForm();
    }
}
function validate() {
    isValid = true;
    if (document.getElementById("medName").value == "") {
        isValid = false;
    }

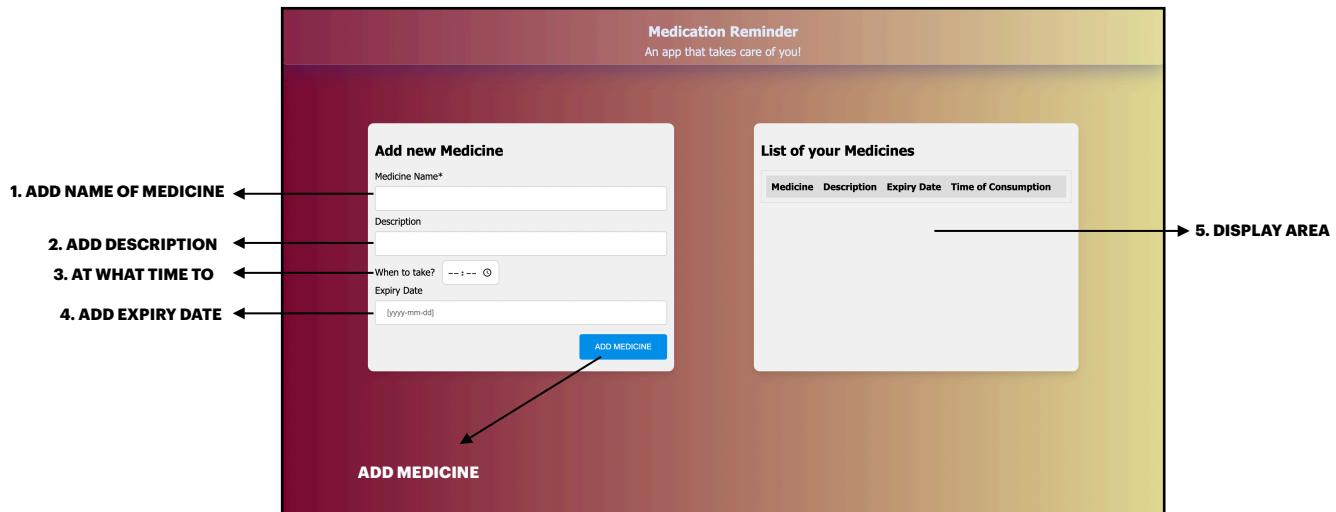
    document.getElementById("medNameValidationError").classList.remove("hide");
} else {
    isValid = true;
    if (!
document.getElementById("medNameValidationError").classList.contains("hide"))

    document.getElementById("medNameValidationError").classList.add("hide");
}
    return isValid;
}

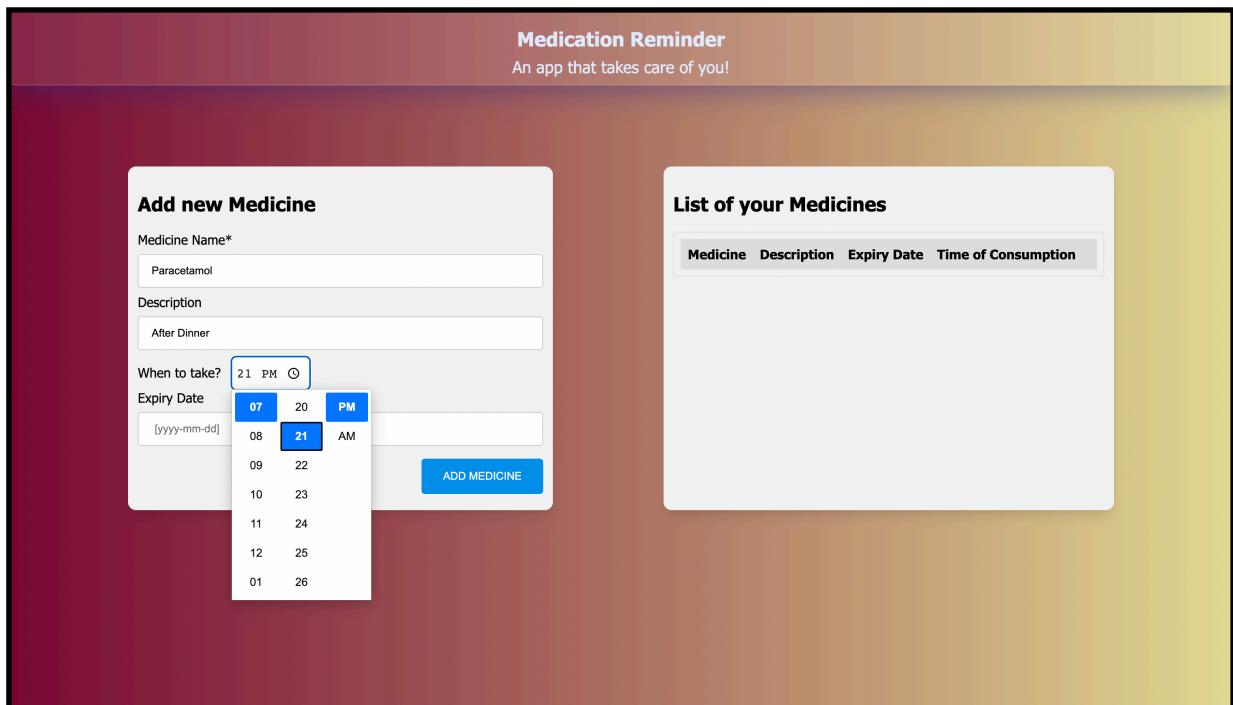
```

RESULTS/OUTPUTS

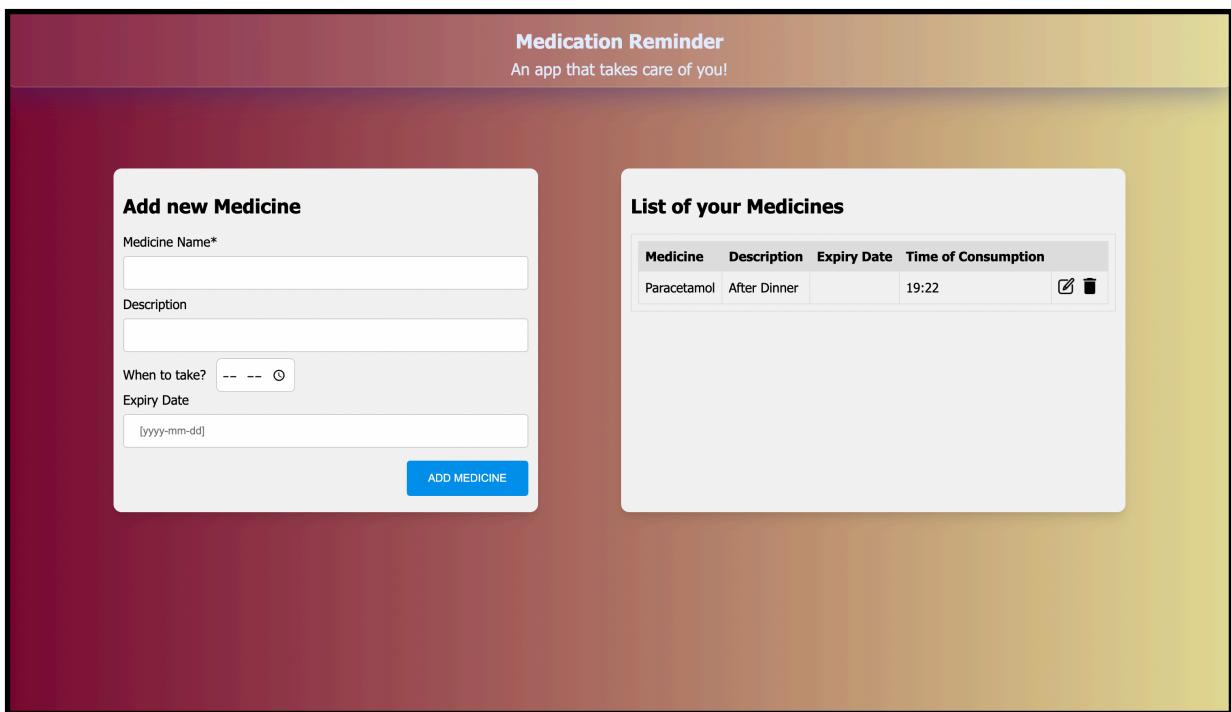
On executing the file we get Conversion software Screen as show below:



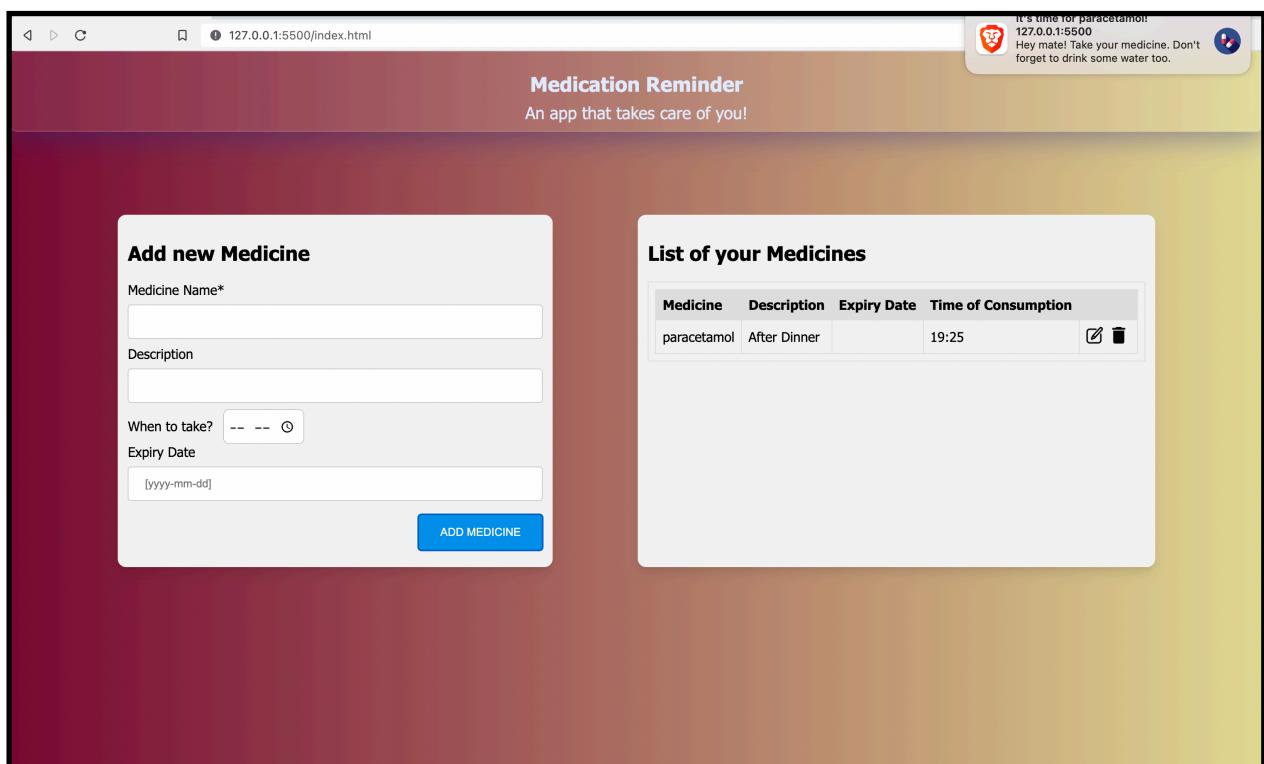
Adding Medicine:



After Adding Medicine:



Notifications:



CONCLUSIONS

Medication Reminder helps the user to take medicines on time, avoiding fatal consequence of untimely intake of medication.

In future version of the application we can:

- Use respective picture of the medicine bottle or leaf for easy identification
- Add a snooze button
- Add feature of different profiles
- Add a feature where app can automatically order medicine online prior to expiry dates

REFERENCE

- [PushJs](#)
- [HTML w3school](#)
- [CSS w3school](#)
- [Javascript](#)

Our Team (Team 30):

- Anita Chennuru
- Ashritha Reddy Mulka
- B Bow Singh
- Meghana
- Sreeja Paka
- Sridhar Angoth
- Vadthya Ashok
- Vikram Mali