

Government Polytechnic Dhanbad

Session 2022 - 25

Project Report On PocketTube

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Abstract :

PocketTube is an incredibly easy-to-use tool for downloading YouTube content. All you have to do is paste a YouTube link into the box on its main page—no tricky steps, no confusion. Once you do that, PocketTube automatically presents you with two options: download the video as an MP4 or just the audio as an MP3. No need to look for extra buttons or settings; it's all set up for you by default. PocketTube handles all the hard work behind the scenes, converting the content into your preferred format. In no time at all, your file is ready—fast, seamless, and hassle-free " Because life's too short for buffering! "

PocketTube is powered by PyTube , Pytube is like that loving mother who makes life simpler when you need her to. Just as you could brew chai yourself but trust her to do it effortlessly, PyTube takes the complexity of downloading and converting YouTube content off your plate. Once you paste a YouTube link and select your format—video (MP4) or audio (MP3)—it takes care of everything quietly in the background, brewing that perfect file for you to download. Sure, you could manage the process manually, but PocketTube abstracts the heavy lifting so you can focus on the things you excel at—whether it's preparing for a lecture, brainstorming ideas, or just enjoying a well-deserved break. It's reliable, fuss-free, and always has your back, just like the person who hands you that comforting cup of chai when you need it most.



Introduction :

This report highlights the 6th semester project we undertook to meet the curriculum and syllabus requirements of our academic program. The focus of this project was on exploring new and straightforward technologies that could be effectively implemented, making the experience both practical and impactful. It gave us the chance to apply our learning in innovative ways, solve real-world challenges, and enhance our skills in working with modern solutions. The report outlines our objectives, the steps we followed, the technologies we chose, the outcomes we achieved, and the lessons we learned in the process, showcasing how this project contributed to our growth and understanding.

This project was carried out under the supervision of **Ishrat Parween** Ma'am, who graciously allowed us to undertake this endeavor. We are sincerely grateful for her trust and support in providing us with the opportunity to work on this project. Her encouragement enabled us to pursue our ideas and contribute meaningfully to our academic requirements. This report is dedicated to acknowledging her role in guiding this initiative forward.

We are a team of dedicated individuals: **Shyam Babu Mahto**, **Sharib Ejaz**, and **Shubham Mishra** , **Md. Salhe Allsabab** . Together, we combined our efforts, creativity, and skills to bring our project to life. The end result of our project is **PocketTube**.

Dependencies :

Python:

PocketTube, our project, is developed using Python, a versatile and widely-used programming language. Python's simplicity and robust libraries allowed us to efficiently implement the core functionalities of our tool. Its adaptability made it the perfect choice for creating a seamless and user-friendly experience while ensuring optimal performance and scalability. PocketTube stands as a testament to the power of Python in turning ideas into reality.

Flask:

PocketTube is built using Flask, a lightweight and powerful web framework for Python. Flask allows us to create a simple yet robust interface for PocketTube, making it easy for users to interact with our tool. Its flexibility and scalability enable seamless integration of features, ensuring a smooth and efficient user experience. By utilizing Flask, PocketTube offers a well-structured and accessible platform for downloading and converting YouTube videos.

PytubeFix:

PocketTube leverages the power of PytubeFix, a modified or custom version of the popular Pytube library. It is specifically designed for downloading YouTube videos. PytubeFix simplifies the process of extracting and handling YouTube content, allowing us to efficiently implement the core features of our tool. By integrating PytubeFix, PocketTube provides seamless functionality for downloading videos and converting them to MP4 or MP3 formats, ensuring reliability and ease of use.

DeviceDetector:

PocketTube uses DeviceDetector, a third-party library for analyzing user-agent strings to detect the type of device, operating system, and browser being used. This enables us to tailor and optimize the user experience based on the specific device accessing PocketTube. It plays a key role in enhancing usability and ensuring compatibility across various platforms.

QRCode:

To generate QR codes for sharing content, PocketTube incorporates the QRCode library. This Python library allows for easy creation of customizable QR codes, enabling users to share URLs or other encoded information seamlessly. The inclusion of QRCode makes PocketTube even more user-friendly by supporting convenient sharing and access options.

Datetime:

The Datetime module, a built-in Python library, is utilized in PocketTube for managing and manipulating date and time objects. Whether it's for logging operations, scheduling tasks, or tracking timestamps, Datetime provides essential functionality for time-related operations in the tool.

Re:

PocketTube also utilizes the Re module, a built-in Python library for working with regular expressions. It is employed to validate user inputs, such as ensuring that entered URLs are valid YouTube links, or for extracting specific patterns from text. Re is integral to handling input validation and string manipulation tasks efficiently.

Genesis :

The journey of creating PocketTube began with leveraging pytube to handle multimedia content effectively. This library allowed us to stream and download video and audio files from YouTube with ease, forming the core functionality of the tool. By utilizing pytube, we established a reliable way to extract and manage files, ensuring robustness and efficiency in the foundation of our project. **"A strong foundation makes all the difference—pytube was ours."**

Once the downloading capability was solidified, we shifted our focus to enhancing accessibility by integrating Flask. Using this lightweight web framework, we set up intuitive routes, endpoints, and a seamless interaction between the web interface and downloading features. Flask played a pivotal role in shaping PocketTube into a functional, user-friendly platform, ensuring a smooth user experience throughout. **"Flask transformed our functionality into effortless usability."**

To elevate the tool's usability and aesthetics, we designed a front-end interface using HTML. These static templates provided a visually appealing and responsive experience, complementing Flask's backend logic. By blending HTML's design flexibility with Flask's functionality, we delivered a polished final product that stood out for its simplicity and effectiveness. **"It all comes together beautifully when design meets functionality."**

Project Structure :

Here's an overview of your project structure :

1. **Audio:**

This folder is used for storing audio files and is directly related to the project's multimedia functionality.

2. **Logs:**

This folder contains log files such as out.txt, serve.txt, users.txt, and wholsWho.txt. These files track various activities, errors, or user interactions within the project.

3. **QRCodes:**

This folder houses QR code-related files, including HerelsMySite.png. It is used to generate or store QR codes for sharing links or features of the project.

4. **Static:**

This folder stores static assets used in the project, including :

- **Images** (subfolder): Contains image files for visual elements.
- **Styles** (subfolder): Contains CSS files to style the web interface.
- **Video** (subfolder): Contains video files that are part of the project.

5. **Templates:**

This folder contains HTML files like aboutUs.html and index.html. These files serve as the front-end templates for the web application.

6. Video:

This folder is used for storing video files that are downloaded or utilized by PocketTube.

7. App.py:

This is the main application file that contains the core logic and routes for the project, which is built using Flask.

8. PSCommand.txt:

This text file includes PowerShell commands or scripts that execute specific tasks related to the project.

9. QRGenerate.py:

This Python script is responsible for generating QR codes and is linked to the QRCode folder.

```
|--- PocketTube (root directory)
|   |--- Audio
|   |--- Logs
|   |--- QRcodes
|   |--- Static
|   |   \--- Images
|   |   \--- Styles
|   |   \--- Video
|   |--- Templates
|   |--- Video
|   |--- App.py
|   |--- PSCommand.txt
|   |--- QRGenerate.py
```

Project structure

How we Approached :

Front UI :

We placed a strong emphasis on crafting a sleek and interactive user interface. The index.html file serves as the foundation, featuring an input field where users can paste the YouTube URL of their desired video. This is paired with two action buttons, labeled Get MP4 and Get MP3, which bring functionality to life. These buttons trigger JavaScript functions designed to handle user requests effortlessly. Simplicity in design, power in execution!

For JavaScript logic, we implemented two pivotal functions: `getVideo()` and `getAudio()`. These functions perform validation to ensure the input field is not empty before proceeding. Once validated, the URL is dynamically appended to a corresponding route—video/ or audio/—based on the button clicked. The functions then open a new browser window with the constructed URL, seamlessly initiating the download process. Smart logic for smooth downloads—every time!

This setup creates a fluid and user-friendly experience, allowing users to download video or audio files with minimal effort. By combining intuitive design with robust JavaScript, we ensured PocketTube delivers on both functionality and efficiency. We didn't just build a tool; we built an experience!

Background Program:

The background program of our project is designed for simplicity and efficiency, with the app.py file serving as the heart of our application. This file is the driving force behind core functionalities

like media conversion and routing. It processes YouTube URLs provided by users, converting them into MP4 or MP3 files based on their selection. Additionally, app.py ensures seamless navigation between pages while efficiently handling requests. By blending clarity with precision, app.py truly forms the backbone of our project. "Every strong system needs a powerful core—this is ours."

Main Approach:

1. Setting Up the Application:

The file begins by configuring the Flask application and importing the necessary modules. The static folder is defined to serve assets like CSS and JavaScript files. "A solid setup paves the way for a flawless experience."

2. Functions for Media Conversion:

The getAudio function extracts audio from the provided YouTube link and saves it in the ./audio directory. The getMpFour function downloads the video in the highest resolution and saves it in the ./video directory. "Custom tools, seamless conversions!"

3. Routes for Navigation and Functionality:

The / route displays the homepage using the index.html template. The /about route navigates to the About Us page. The /video/path:url route processes video downloads using the getMpFour function and sends the file to the user. Similarly, the /audio/path:url route processes audio downloads via getAudio and delivers the file. "Routes that connect, functionality that delivers."

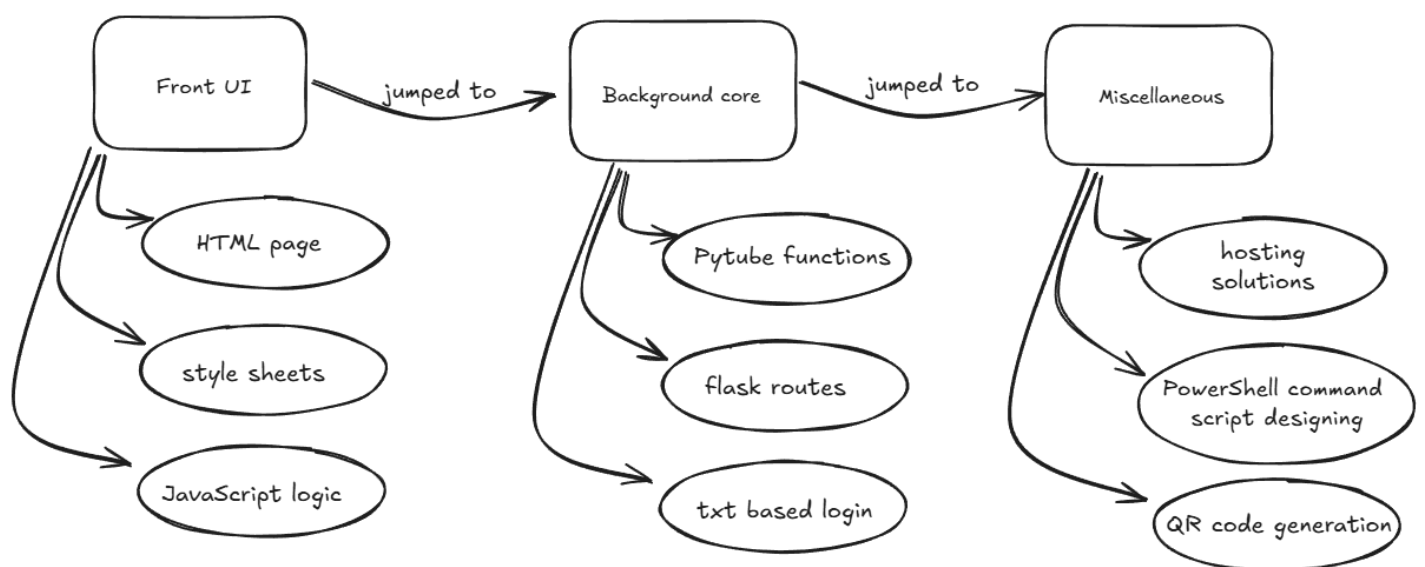
4. Serving User Requests:

Each route dynamically handles requests based on user input

(URL) and provides the appropriate media file for download.
"Your request, our responsibility—served flawlessly."

5. Running the Application:

The app runs in debug mode, making it easier to identify and resolve errors during development. Strict URL slashes are disabled to enhance user convenience. "Debug-friendly, user-focused—built to perform!"



Code :

app.py :

```
from datetime import datetime
from flask import Flask, redirect, render_template,
request, send_file, url_for
from pytubefix import YouTube
from device_detector import DeviceDetector

app = Flask(__name__ , static_folder='static')

def log_user_activity(userName):
    # Get the current time and format as dd-mm-yyyy
    HH:MM:SS
    current_time = datetime.now().strftime('%d-%m-%Y
%H:%M:%S')

    # Format the log entry
    log_entry = f"{userName} logged in at
{current_time}\n\n"

    # Append the log entry to 'serve.txt'
    with open("logs/users.txt", "a") as file:
        file.write(log_entry)

def log_user_logout(user):
    # Get the current time in dd mm yyyy format
```

```
current_time = datetime.now().strftime('%d %m %Y
%H:%M:%S')

# Open the file in append mode and write the log
entry
with open("logs/users.txt", "a") as file:
    file.write(f"{user} logged out at
{current_time}\n\n")

def write_to_file(first, second):
    # Open the file in append mode ('a')
    with open("logs/whoIswho.txt", "a") as file:
        # Write the formatted string to the file
        file.write(f"{first} is {second}\n\n")

def append_client_info(file_path , req , url):
    """Append detailed client device info to the
specified file."""

    # Get User-Agent string and client IP
    user_agent_string =
request.headers.get('User-Agent') # User-Agent details
    client_ip = request.remote_addr # Client's IP
address

    # Parse User-Agent string using DeviceDetector
    dd = DeviceDetector(user_agent_string).parse()

    # Extract device details
    device_type = dd.device_type() or "Unknown Device
Type" # Device type (mobile, tablet, etc.)
```

```

    os = f"{dd.os_name() or 'Unknown OS'}
{dd.os_version() or 'Unknown Version'}" # OS name and
version
    browser = f"{dd.client_name() or 'Unknown Browser'}
{dd.client_version() or 'Unknown Version'}" # Browser
and version

    # Get current date and time
    now = datetime.now()
    date_time = now.strftime("%Y-%m-%d %H:%M:%S") #
Format: YYYY-MM-DD HH:MM:SS

    # Prepare data to append
    info = (f"At: {date_time}, Device Type:
{device_type}, "
           f"OS: {os}, Browser: {browser}, requested:
{req} of YouTube({url}) \n\n")

    # Append information to the file
    with open(file_path, 'a') as file:
        file.write(info)

def check_youtube_url(url):
    try:
        YouTube(url)
        return True
    except Exception as e:
        print(f"Invalid URL: {e}")
        return False

def getAudio(url):

```

```
        yt = YouTube(url)
        audio_stream =
yt.streams.filter(only_audio=True).first()
        path = audio_stream.download(output_path='./audio')
        return path

def getMpFour(link):

    yt = YouTube(link)

    video = yt.streams.get_highest_resolution()
    filePath = video.download('./video')
    return filePath

@app.route('/whoIsWho/<first>/<second>')
def whoIsWho(first,second):
    write_to_file(first,second)
    return ''

@app.route('/userLoggedOut/<user>')
def userLoggdOut(user):
    log_user_logout(user)
    return ''

@app.route('/users/<userName>')
def start(userName):
    log_user_activity(userName)
    return ''

@app.route('/')
```



```
def index():
    return render_template('index.html')

@app.route('/about')
def aboutUs():
    return render_template('aboutUs.html')

@app.route('/redirect/<arg>')
def redirect(arg):
    return f"{arg} not found"

@app.route('/video/<path:url>')
def video(url):

    if check_youtube_url(url):
        append_client_info('logs/serve.txt', "video" ,
url)

        video = getMpFour(url)
        return send_file(video)

    return redirect(url_for('redirect(<url>)))

@app.route('/audio/<path:url>')
def audio(url):

    if check_youtube_url(url):
        append_client_info('logs/serve.txt', "Audio" ,
url)

        audio = getAudio(url)
        return send_file(audio)
```

```
        return redirect(url_for('index'))

if __name__ == '__main__':
    app.url_map.strict_slashes = False
    app.run(debug=False)
```

Index.html :

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <link rel="preconnect"
href="https://fonts.googleapis.com" />
    <link rel="preconnect"
href="https://fonts.gstatic.com" crossorigin />
    <link
href="https://fonts.googleapis.com/css2?family=DM+Mono:
ital,wght@0,300;0,400;0,500;1,300;1,400;1,500&family=Nu
nito+Sans:ital,opsz,wght@0,6..12,200..1000;1,6..12,200.
.1000&display=swap"
      rel="stylesheet"
    />

    <link rel="preconnect"
href="https://fonts.googleapis.com" />
    <link rel="preconnect"
href="https://fonts.gstatic.com" crossorigin />
```

```
<link

href="https://fonts.googleapis.com/css2?family=Tangerine:wght@400;700&display=swap"
  rel="stylesheet"
/>

<link rel="preconnect"
href="https://fonts.googleapis.com" />
<link rel="preconnect"
href="https://fonts.gstatic.com" crossorigin />
<link

href="https://fonts.googleapis.com/css2?family=Poppins:ital,wght@0,100;0,200;0,300;0,400;0,500;0,600;0,700;0,800;0,900;1,100;1,200;1,300;1,400;1,500;1,600;1,700;1,800;1,900&family=Tangerine:wght@400;700&display=swap"
  rel="stylesheet"
/>

<link
  rel="stylesheet"
  href="{{ url_for('static',
filename='styles/style.css') }}"
/>

<link
  rel="icon"
  href="{{ url_for('static',
filename='images/youtube6.svg') }}"
/>
```

```

<meta charset="UTF-8" />
<meta
  name="viewport"
  content="width=device-width, initial-scale=1.0 ,
user-scalabe=0 maximum-scale=1.0"
/>
<title>PocketTube</title>
</head>
<body>
  <div id="nav">
    
    <p id="curr">Home</p>
    <p onclick="aboutUs()">About us</p>
    
  </div>

  <div class="dropdown" id="dropdownContent">
    <svg height="5" width="100%" style="margin: 20px
0">

```

[illegible]

```
        y1="0"
        x2="100%"
        y2="0"
        stroke="#7d7c7c"
        stroke-width="3"
    />
</svg>

<div>
    <button id="logOut" onclick="logOut()">log
out</button>
</div>
</div>

<div id="loading-screen">
    
    <div id="loading">
        <h1>Loading Page</h1>
    </div>
    <div id="fact-container"></div>
</div>

<video class="video-background" autoplay loop
muted>
    <source
        src="static\video\staticBackground1.mp4"
        type="video/mp4"
        playsinline
    />
</video>
```

```

<center id="vercenter">
  <div id="body" style="margin-bottom: 0px">
    <input
      type="search"
      name="url"
      id="url"
      autocomplete="off"
      placeholder="Enter URL Here..."
    />

    <br /><br />

    <div id="btn">
      <span id="fire" onclick="getVideo()">
        
        &nbsp; Get MP4
      </span>

      <span id="fire" onclick="getAudio()">
        
        &nbsp; Get MP3
      </span>
    </div>
  </div>

  <div id="videoContainer">
    <h2>Your Request :</h2>
  </div>

```

```
</center>
```

```
<div id="foot">
```

```
<p>Engineered With</p>
```

```
<span>&hearts;</span>
```

```
<br />
```

```
<p>At <span id="gpd">GP Dhanbad</span></p>
```

```
</div>
```

```
<script>
```

```
const facts = [
```

```
    "A.P.J. Abdul Kalam revolutionized India's  
missile and space programs, earning him the nickname  
'Missile Man of India'.",
```

```
    "Dr. Vikram Sarabhai, known as the father of  
the Indian space program, was instrumental in founding  
ISRO.",
```

```
    "Homi J. Bhabha established India's nuclear  
research program, laying the foundation for its nuclear  
energy sector.",
```

```
    "Satish Dhawan pioneered modern rocket design  
in India and helped develop launch vehicles like the  
SLV and PSLV.",
```

```
    "N.R. Narayana Murthy co-founded Infosys,  
transforming India's software services industry on the  
global stage.",
```

```
    "Azim Premji transformed Wipro from a small  
company into a global IT powerhouse by emphasizing  
innovation.",
```


"Nandan Nilekani spearheaded the development of Aadhaar, the world's largest biometric identification system.",

"Dr. Tessy Thomas, often called the 'Missile Woman of India', led critical missile development projects.",

"Dr. Raghunath Mashelkar introduced modern biotechnology research in India with lasting public health benefits.",

"Dr. C.N.R. Rao's groundbreaking work in solid-state and materials chemistry has influenced multiple technology fields.",

"Vikram Lall played a significant role in promoting and nurturing key tech startups across India.",

"Rakesh Kapoor contributed to the transformation of business operations through innovative IT solutions.",

"Govindarajan Ramaswamy developed technology solutions that have empowered rural communities in India.",

"Dr. Manmohan Singh, before his tenure as Prime Minister, contributed to economic policies that spurred tech growth.",

"Sundar Pichai, an Indian-born visionary, has led Google to innovate and grow its product ecosystem.",

"Sanjay Mehrotra co-founded SanDisk, revolutionizing flash memory technology worldwide.",

"Vinod Dham, known as the 'Father of the Pentium chip', played a pivotal role in the evolution of personal computing.",

"Shiv Nadar founded HCL Technologies, which emerged as one of India's leading global IT services companies.",

"Kris Gopalakrishnan co-founded Infosys and helped shape India's reputation in the global IT industry.",

"Narayana Murthy's vision and ethical leadership have set benchmarks for Indian technology entrepreneurs.",

"Padmasree Warrior broke glass ceilings in semiconductor technology and leadership, inspiring future generations.",

"Arvind Krishna, now CEO of IBM, has driven innovation in cloud computing and artificial intelligence.",

"Saurabh Mittal has led initiatives that improved digital payment systems, influencing India's shift toward cashless transactions.",

"Deepinder Goyal, founder of Zomato, revolutionized food industry logistics and digital ordering in India.",

"Byju Raveendran pioneered digital education platforms, expanding learning opportunities for millions of Indians.",

"Vijay Shekhar Sharma, the founder of Paytm, played a key role in popularizing mobile payments and the digital economy.",

"Bhavish Aggarwal co-founded Ola and transformed urban mobility through technology-driven transportation solutions.",

"Kunal Bahl, co-founder of Snapdeal, helped redefine the e-commerce landscape for Indian consumers.",

"Ritesh Agarwal founded OYO Rooms, using technology to standardize and disrupt the hospitality sector.",

"Falguni Nayar created Nykaa, leveraging digital platforms to empower and redefine beauty retail in India.",

"Suhas Gopinath became one of the youngest entrepreneurs by launching a tech company at an early age.",

"Raghav Bahl pioneered digital journalism, setting new standards for online media in India.",

"Kiran Mazumdar-Shaw built Biocon into one of Asia's leading biotech firms through innovation and research.",

"Vineet Nayar reinvented management practices at HCL Technologies, emphasizing empowerment and customer-centricity.",

"Dr. Kiran Kumar's contributions in robotics and AI research have advanced technology in India's industrial sectors.",

"Manoj Bhargava created innovative and cost-effective solutions to address global energy challenges from an Indian perspective.",

"S. Somasegar has held key leadership roles bridging Indian talent with global technology giants.",

"Sam Pitroda was instrumental in telecom reforms that laid the groundwork for India's digital revolution.",

"Vinod Khosla, co-founder of Sun Microsystems, has been a major influence on technology investments with Indian roots.",

"S. D. Shibulal leveraged his expertise at Wipro to drive innovation and enhance corporate governance in tech.",

"Subhash Khot's introduction of the Unique Games Conjecture has influenced theoretical computer science globally.",

"K. Radhakrishnan, an ISRO veteran, contributed significantly to the success of India's space missions.",

"Raj Reddy, a pioneer in artificial intelligence, has influenced robotics research and education worldwide.",

"Munish Chandra Purani developed digital solutions for environmental monitoring, impacting India's sustainability efforts.",

"Dr. M.R. Narasimhan advanced computational fluid dynamics research, contributing to innovations in engineering.",

"K. Ananth Krishnan was recognized for developing cost-effective digital solutions in India's agricultural sector.",

"M. Gopalakrishnan has mentored numerous startups by sharing his expansive knowledge in computing innovations.",

"S.R. Sankaran significantly advanced semiconductor research, contributing to India's growing electronics industry.",

"Dr. Rangan Banerjee's work in quantum computing is paving the way for next-generation tech research in India.",

"Vijay Kelkar helped reshape digital finance by contributing to the development of secure online banking systems.",

"Arunachalam Muruganantham invented low-cost medical devices, using engineering to solve rural health challenges.",

"Sangeeta Bhatia's breakthroughs in micro/nano technology have revolutionized healthcare diagnostics.",

"Dr. Rohini Godbole contributed to particle physics, representing India at major international scientific forums.",

"S.G. Sampath developed critical software systems that bolstered the efficiency of India's banking infrastructure.",

"Anil Ambani's ventures in telecom and media spurred digital transformations across multiple Indian enterprises.",

"Dr. Pavan Varshneya's research in computational neuroscience has broadened the understanding of AI applications.",

"Arun Netravali, a pioneer in digital video technology, has influenced standards that benefit both India and the world.",

"Dr. Rajendra Pachauri integrated technology with environmental activism to improve data collection in India.",

"Giriraj Kaushik led innovations in mobile app development, enhancing user experience in Indian tech products.",

"Dr. S.R. Kale designed scalable IT architectures that have powered many of India's high-growth tech companies.",

"Dr. Suresh Reddy's pioneering research in cybersecurity has fortified India's digital infrastructures.",

"Deepak Parekh fostered digital banking innovations that helped modernize financial services in India.",

"Dr. Ramesh Raskar's work in computational imaging is setting new directions for medical diagnostics in India.",

"S. Raghu developed affordable technology solutions that made digital education more accessible across India.",

"Dr. Kapil Gupta's advances in digital healthcare have driven the expansion of telemedicine initiatives.",

"Sunil Bharti Mittal transformed Airtel into a tech-driven communications giant connecting millions.",

"Dr. Rajesh Gopinathan steered major Indian corporations toward digital innovation and strategic transformation.",

"Dr. Venkatesh Narayanamurthy's contributions in information systems and big data analytics have modernized business practices.",

"G. Srinivasan played a foundational role in establishing India's software export industry.",

"Dr. S. Prakash empowered Indian startups by sharing insights on artificial intelligence and machine learning trends.",

"Dr. Himanshu Bhatnagar developed innovative agricultural technologies that enhanced productivity on a national scale.",

"Dr. Sandeep Singh advanced nanotechnology research, contributing to breakthroughs in advanced material sciences.",

"Ashok Gupta was an early adopter of computer technology, helping modernize key industries during the digital revolution.",

"Dr. Surajit Chatterjee's developments in wireless communications have significantly improved India's connectivity.",

"Bharat Desai, as co-founder of Syntel, pioneered outsourcing and global delivery models from India.",

"Dr. Inderjit Singh led initiatives in microelectronics, driving semiconductor research in Indian laboratories.",

"Dr. Pankaj Kumar has explored the role of AI in sustainable technology development, impacting eco-friendly innovations.",

"Dr. V.R. Raghavan is renowned for his research in optical communications and photonics, bolstering India's tech edge.",

"Uday Kumar was a key figure in developing mobile solutions tailored for the dynamic Indian consumer market.",

"Dr. Santosh Patil's work in embedded systems has propelled advancements in automotive technologies across India.",

"Manoj Bhatt created scalable IT infrastructure solutions that modernized educational institutions in India.",

"Dr. Ashok Shenoy advanced cloud computing innovations, influencing India's digital transformation policies.",

"Sudhir Joshi launched multiple startups, demonstrating entrepreneurial spirit in India's digital technology arena.",

"Dr. Lalit Gupta specialized in robotics and automation, significantly enhancing manufacturing processes in India.",

"Ravi Gupta pioneered IT solutions that improved operational efficiencies across Indian industries.",

"Dr. U.N. Verma contributed breakthrough research in information theory that spurred academic and practical innovations.",

"Anand Kumar integrated technology into his renowned Super 30 program, revolutionizing education in India.",

"Dr. Jai Prakash developed robust software systems for critical government projects across India.",

"Pramod Kumar implemented early digital marketing strategies that laid the groundwork for India's e-commerce boom.",

"Dr. Ashok Kumar's work in signal processing created the foundation for modern communication systems in India.",

"Hemant Patel earned recognition for advancing data analytics and business intelligence in Indian startups.",

"Dr. Vijay Kumar pushed the frontiers of drone technology and robotics, driving automated systems research.",

"Suresh Iyer played an influential role in pioneering integrated circuit technologies in early Indian tech industries.",

"Dr. Mukund Agarwal developed innovative software solutions that have improved healthcare outcomes in India.",

"Dr. Raman Gupta propelled renewable energy research, creating sustainable tech applications for rural India.",

"Dr. R.K. Sharma's work in computational bioinformatics opened vast new avenues for biotech innovation in India.",

"S. Venkatesan's contributions in precision engineering have been vital in advancing India's high-tech manufacturing.",

"Dr. Manish Joshi integrated innovative digital payment solutions, transforming financial platforms across India.",

"Dr. Aniruddha Malpani led research into machine learning algorithms tailored to solve challenges in the Indian market.",

"Dr. Sandip Tripathi drove innovations in Internet-of-Things applications to power smart city initiatives in India.",

"Dr. Umesh Mishra's work in composite materials has led to breakthroughs in product design and engineering innovations.",

"Dr. R.K. Verma significantly advanced biometric security technologies, strengthening digital defenses in India.",

"Rudra Prasad introduced early computer networking concepts that laid the groundwork for India's IT infrastructure.",

"Dr. Ajay Mehra pioneered optical fiber communication technologies, enhancing connectivity across India.",

"Dr. Kumar P. Sant advised major industries on digital transformation strategies, shaping the future of Indian IT.",

"Dr. S.K. Singh's work in high-performance computing propelled academic and industrial research throughout India.",

"R.K. Verma's legacy in signal processing continues to inspire a generation of telecommunications engineers in India.",

"Dr. Apurva Arora developed early e-governance platforms that streamlined administrative processes nationwide.",

"Dr. Uday Singh's groundbreaking work in cybersecurity has helped build resilient digital infrastructures.",

"Dr. P.K. Reddy paved the way for innovative software development methodologies in India's IT firms.",

"Dr. Anil Joshi innovated cost-effective semiconductor fabrication processes that propelled the electronics industry.",

"Dr. Rajeev Kumar's algorithm development research has significantly advanced data science projects in India.",

"Sanoj Singh co-founded tech startups that transformed digital service delivery for Indian consumers.",

"Dr. Anoop Menon is renowned for his advances in artificial intelligence within Indian healthcare technology.",

"Shrinivas Kulkarni advanced statistical methods for large data set analysis in Indian scientific research.",

"Dr. Balaji Srinivasan influenced blockchain and digital currency innovations with a distinct Indian perspective.",

"Dr. Kunal Verma's work in computational modeling has set the stage for advanced engineering projects across India.",

"Dr. Aditya Balasubramanian pioneered next-generation wireless communication technologies in India.",

"Dr. Vijay Menon's breakthroughs in nanotechnology have led to the development of smart materials for tech applications.",

"Dr. Pradeep Sharma's research in computer vision has advanced biometric and surveillance systems in India.",

"Girish Wagh emerged as a prominent tech leader, driving digital transformation within India's corporate sectors.",

"Dr. Abhishek Lodhak has been a pioneer in implementing cost-effective rural internet infrastructure projects.",

"Dr. Sumit Roy's innovations in communication protocols have significantly enhanced digital network reliability.",

"Dr. Amitabh Bose developed real-time data processing algorithms that have optimized operations in Indian tech firms.",

"Dr. Manjunath Patil's research in distributed systems has fueled cloud computing advancements in India.",

"Dr. Neeraj Sharma is recognized for advancing cybersecurity frameworks in Indian research institutions.",

"Dr. Shailendra Rao's pioneering work in electronic design automation reshaped India's semiconductor industry.",

"Dr. Prakash Iyer revolutionized fintech with secure, scalable digital transaction technologies across India.",

"Dr. R.S. Menon's contributions in signal processing and integrated circuits laid foundations for the electronics sector.",

"Dr. Sandeep Gupta propelled IoT and smart home innovations designed specifically for Indian consumers.",

"Dr. Mukesh Kumar has been instrumental in developing machine learning models to solve complex challenges in India.",

"Dr. Jitendra Singh's research in data mining has significantly influenced digital marketing strategies among Indian companies.",

"Dr. Pradeep Sengupta advanced neural network research that continues to drive AI applications in India.",

"Dr. Sanjay Kapoor's contributions in big data and cloud computing have bolstered emerging technologies in India.",

"Dr. Ashwin Varghese's work in wireless sensor networks has driven connectivity solutions for smart cities in India.",

"Dr. Shyam Sundar's innovations in digital logistics have modernized supply chain management across the country.",

"Dr. Milan Jha's research in applied mathematics and computational algorithms has influenced tech research nationwide.",

"Dr. Harish Bhatnagar pioneered medical technology innovations that transformed healthcare diagnostics with IT solutions.",

"Dr. Anurag Rathore developed secure digital communication protocols vital for enhancing IT security in India.",

"Dr. Vijay Khanna led initiatives to create affordable tech solutions for educational institutions across India.",

"Dr. Prashant Reddy's work in cloud analytics paved the way for scalable digital infrastructure in Indian businesses.",

"Dr. Rakesh Sinha is celebrated as a mentor and visionary in pioneering artificial intelligence in Indian tech.",

"Dr. S.M. Kapoor's research in geoinformatics has advanced satellite-based mapping and navigation capabilities.",

"Dr. Rajiv Chopra played an influential role in the evolution of digital learning platforms in Indian education.",

"Dr. Mukul Sharma's groundbreaking work in virtual and augmented reality is setting new paradigms in Indian tech.",

"Dr. Praveen Kumar pioneered robust cybersecurity protocols that help secure India's expanding digital economy.",

"Dr. Abhay Mehta's innovations in software engineering have greatly enhanced the scalability of IT solutions in India.",

"Dr. Ashok Narayan transformed tech education by integrating hands-on computer science projects into India's curricula.",

"Dr. Mahesh Kulkarni's pioneering research in quantum computing is poised to redefine technological paradigms in India.",

"Dr. Suresh Verma has consistently championed digital innovation, inspiring a new generation of Indian tech entrepreneurs.",

];

```
function displayRandomFact() {  
    const randomIndex = Math.floor(Math.random() *  
facts.length);  
    const randomFact = facts[randomIndex];
```

```
document.getElementById("fact-container").innerHTML =  
randomFact;  
}
```

```
function hideLoadingScreen() {  
    const loadingScreen =  
document.getElementById("loading-screen");  
    loadingScreen.style.display = "none";  
}
```

```
function getVideo() {  
    const inputValue =  
document.getElementById("url");  
  
    if (inputValue.value == "") {
```

```
        inputValue.focus();
        return 0;
    }

    const prefix = window.location.href + "video/";
    const URL = prefix + inputValue.value;
    loadVideo(URL, "videoContainer");
    inputValue.value = "";
}

function getAudio() {
    const inputValue =
document.getElementById("url");

    if (inputValue.value == "") {
        inputValue.focus();
        return 0;
    }

    const prefix = window.location.href + "audio/";
    const URL = prefix + inputValue.value;

    console.log;

    loadAudio(URL, "videoContainer");

    inputValue.value = "";
}

function aboutUs() {
    const demand = "about";
```



```
    const currentURL = window.location.href;
    const URL = currentURL + demand;
    window.location.href = URL;
  }

  document.addEventListener("visibilitychange", ()
=> {
    if (document.visibilityState === "hidden") {
      // const user =
document.getElementById("nameInput").value;
      // fetch(`/userLoggedOut/${user}`);
      //console.log("User has left the tab.");
    } else if (document.visibilityState ===
"visible") {
      location.reload();
    }
  });

  function loadVideo(url, containerId) {
    // Get the container div by its ID
    const videoContainer =
document.getElementById(containerId);

    // Make the container visible
    videoContainer.style.display = "flex"; // Show
the container
    videoContainer.style.flexDirection = "column";
    // Stack elements vertically
    videoContainer.style.alignItems = "center"; //
Center content horizontally
```

```
        videoContainer.style.gap = "20px"; // Add space
between elements

        // Clear the container before adding new
content
        videoContainer.innerHTML = "";

        // Create a new <div> element to wrap the video
and download button
        const videoDiv = document.createElement("div");

        // Create the <video> element dynamically
        const videoElement =
document.createElement("video");
        videoElement.controls = true; // Enable
play/pause controls
        videoElement.src = url; // Set the video source
dynamically
        videoElement.controlsList = "nodownload";
        videoElement.style.width = "90%"; // Video
element takes 80% width of parent container
        videoElement.style.height = "auto"; // Adjust
height automatically to maintain aspect ratio
        videoElement.style.borderRadius = "10px"; //
Rounded corners for aesthetics

        videoElement.addEventListener("error", () => {
            videoContainer.innerHTML =
                "<p style='color: red;'> Video failed to
load. Please enter valid URL.</p>";
            return; // Exit the function immediately
```

```
    });  
    // Disable context menu to prevent interactions  
    like right-click or long press  
    videoElement.addEventListener("contextmenu",  
(event) => {  
        event.preventDefault(); // Block the default  
        context menu  
    });  
  
    // Append the <video> element to the <div>  
    videoDiv.appendChild(videoElement);  
  
    // Create a download button  
    const downloadButton =  
document.createElement("button");  
    downloadButton.textContent = "Download Video";  
    // Initial button text  
  
    // Set the button's styles  
    downloadButton.style.fontSize = "12px";  
    downloadButton.style.backgroundColor = "black";  
    downloadButton.style.padding = "10px 20px";  
    downloadButton.style.filter = "none";  
    downloadButton.style.borderRadius = "10px";  
    downloadButton.style.fontFamily = "'Nunito  
Sans', sans-serif";  
    downloadButton.style.border = "none";  
    downloadButton.style.color = "whitesmoke";  
    downloadButton.style.webkitTapHighlightColor =  
"transparent";  
    downloadButton.style.cursor = "pointer";
```

```
downloadButton.style.display = "flex";
downloadButton.style.alignItems = "center";
downloadButton.style.width = "90%";
downloadButton.style.height = "30px";
downloadButton.style.justifyContent = "center";
downloadButton.style.gap = "5px"; // Space
between text and image
downloadButton.style.whiteSpace = "nowrap";

// Add an image/icon to the button
const buttonImage =
document.createElement("img");
buttonImage.src = "static/images/download.svg";
// Replace with your image URL
buttonImage.alt = "Download Icon";

// Set the image styles
buttonImage.style.width = "20px";
buttonImage.style.height = "20px";
buttonImage.style.pointerEvents = "none"; //
Prevents interaction
buttonImage.style.userSelect = "none"; //
Prevents text selection or dragging

// Add the image to the button
downloadButton.prepend(buttonImage);

// Set the download functionality with delay
and message
downloadButton.addEventListener("click", () =>
{
```

```
        // Change the button text to indicate waiting
        downloadButton.textContent = "We don't show
you ads";

        // Wait for 3 seconds
        setTimeout(() => {
            // Reset the button text and re-add the
image
            downloadButton.textContent = "Download
Video";
            downloadButton.prepend(buttonImage); // Add
the image back

            // Create a link element for the download
            const link = document.createElement("a");
            link.href = url; // Set the URL for the
video file
            link.download = "video-file.mp4"; //
Suggest a file name for download
            link.click(); // Programmatically trigger
the download
        }, 3000); // Delay of 3 seconds
    });

    // Append the download button to the <div>
    videoDiv.appendChild(downloadButton);

    // Append the <div> to the container
    videoContainer.appendChild(videoDiv);

    window.scroll(0, 500);
```

```
}

function loadAudio(url, containerId) {
    // Get the container div by its ID
    const audioContainer =
document.getElementById(containerId);

    // Make the container visible
    audioContainer.style.display = "flex"; // Show
the container
    audioContainer.style.flexDirection = "column";
// Stack elements vertically
    audioContainer.style.alignItems = "center"; //
Center content horizontally
    audioContainer.style.gap = "20px"; // Add space
between elements

    // Clear the container before adding new
content
    audioContainer.innerHTML = "";

    // Create the <audio> element dynamically
    const audioElement =
document.createElement("audio");
    audioElement.controls = true; // Enable audio
play/pause controls
    audioElement.src = url; // Set the audio source
dynamically
    audioElement.style.width = "90%"; // Audio
element takes 80% width of parent container
```

```
        audioElement.style.height = "40px"; // Set
height for better visibility of controls
        audioElement.controlsList = "nodownload";

        audioElement.addEventListener("error", () => {
            audioContainer.innerHTML =
                "<p style='color: red;*> Audio failed to
load. Please enter a valid URL.</p>";
            return; // Exit the function immediately
        });

        // Append the <audio> element to the <div>
        audioContainer.appendChild(audioElement);

        // Create a download button
        const downloadButton =
document.createElement("button");
        downloadButton.textContent = "Download Audio";
// Initial button text

        // Set the button's styles
        downloadButton.style.fontSize = "12px";
        downloadButton.style.backgroundColor = "black";
        downloadButton.style.padding = "10px 20px";
        downloadButton.style.filter = "none";
        downloadButton.style.borderRadius = "10px";
        downloadButton.style.fontFamily = "'Nunito
Sans', sans-serif";
        downloadButton.style.border = "none";
        downloadButton.style.color = "whitesmoke";
```

```
        downloadButton.style.webkitTapHighlightColor =
"transparent";
        downloadButton.style.cursor = "pointer";
        downloadButton.style.display = "flex";
        downloadButton.style.width = "90%";
        downloadButton.style.height = "30px";
        downloadButton.style.alignItems = "center";
        downloadButton.style.justifyContent = "center";
        downloadButton.style.gap = "5px"; // Space
between text and image
        downloadButton.style.whiteSpace = "nowrap";

        // Add an image/icon to the button
        const buttonImage =
document.createElement("img");
        buttonImage.src = "static/images/download.svg";
// Replace with your image URL
        buttonImage.alt = "Download Icon";

        // Set the image styles
        buttonImage.style.width = "20px";
        buttonImage.style.height = "20px";
        buttonImage.style.pointerEvents = "none"; //
Prevents interaction
        buttonImage.style.userSelect = "none"; //
Prevents text selection or dragging

        // Add the image to the button
        downloadButton.prepend(buttonImage);
```



```
        // Set the download functionality with delay
and message
        downloadButton.addEventListener("click", () =>
{
        // Change the button text to indicate waiting
downloadButton.textContent = "We don't show
you ads ";

        // Wait for 3 seconds
setTimeout(() => {
        // Reset the button text and re-add the
image
        downloadButton.textContent = "Download
Audio";
        downloadButton.prepend(buttonImage); // Add
the image back

        // Create a link element for the download
const link = document.createElement("a");
link.href = url; // Set the URL for the
audio file
        link.download = "audio-file.mp3"; //
Suggest a file name for download
        link.click(); // Programmatically trigger
the download
        }, 3000); // Delay of 3 seconds
});

// Append the download button to the <div>
// audioDiv.appendChild(downloadButton);
```

```
// Append the <div> to the container
audioContainer.appendChild(downloadButton);

window.scroll(0, 500);
}

function dropSettings() {
  // Toggle the visibility of the dropdown
  const dropdown =
document.getElementById("dropdownContent");

  if (
    dropdown.style.display === "none" ||
    dropdown.style.display === ""
  ) {
    dropdown.style.display = "flex";
  } else {
    dropdown.style.display = "none";
  }
}

function generateVirtueName() {
  const virtues = [
    "Valor",
    "Justice",
    "Haven",
    "True",
    "Patience",
    "Peace",
    "Joy",
    "Wisdom",
```

```
        "Harmony",
        "Honor",
    ];
    const selectedName =
        virtues[Math.floor(Math.random() *
virtues.length)];

    const localName =
localStorage.getItem("userName");

    if (!localName) {
        return selectedName;
    }

    return localName;
}

function resetname() {
    if (document.getElementById("nameInput").value
== "") {
        document.getElementById("nameInput").value =
generateVirtueName();
    }
}

function logWhoIsWho(first, second) {
    fetch(`/whoIsWho/${first}/${second}`);
}

function logOut() {
```

```
        const logoutButton =
document.getElementById("logOut");
        const user =
document.getElementById("nameInput").value;
        logoutButton.textContent = "Logging you out";
        fetch(`/userLoggedOut/${user}`);

        setTimeout(() => {
            window.close();
        }, 3000);
    }

    window.addEventListener("load", () => {
        // Check if the page is being loaded for the
first time in this session
        if (!sessionStorage.getItem("hasLoaded")) {
            const user =
document.getElementById("nameInput").value;
            localStorage.setItem("userName", user);
            fetch(`/users/${user}`);

            // console.log("This is the initial page
load!");
            sessionStorage.setItem("hasLoaded", "true");
// Mark as loaded
        } else {
            // console.log("This is an intermediate load
(e.g., reload) and will be ignored.");
        }
    });
```

```
function staticRun() {
    document.getElementById("nameInput").value =
generateVirtueName();
    displayRandomFact();
    // Simulate a delay to show the loading screen
    // log();
    setTimeout(hideLoadingScreen, 3000);
}

function log() {
    const user =
document.getElementById("nameInput").value;
    const btn = document.getElementById("saveBtn");

    const storedName =
localStorage.getItem("userName");

    if (storedName === null || storedName === "") {
        localStorage.setItem("userName", user);
        // fetch(`/userlogged/${user}`);
        // alert(localStorage.getItem('userName'))
        return;
    }

    const first = localStorage.getItem("userName");
    localStorage.setItem("userName", user);

    fetch(`/whoIsWho/${first}/${user}`);

    // alert(localStorage.getItem('userName'))
```

```
        btn.textContent = "saving";

        setTimeout(() => {
            btn.textContent = "save";
        }, 2000);

        fetch(`/userLoggedOut/${first}`).then(() => {
            fetch(`/users/${user}`);
        });
    }

    staticRun();
</script>
</body>
</html>
```

About.html :

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <link rel="preconnect"
href="https://fonts.googleapis.com" />
    <link rel="preconnect"
href="https://fonts.gstatic.com" crossorigin />
    <link
href="https://fonts.googleapis.com/css2?family=DM+Mono:
ital,wght@0,300;0,400;0,500;1,300;1,400;1,500&family=Nu
```

```
nito+Sans:ital,opsz,wght@0,6..12,200..1000;1,6..12,200.  
.1000&display=swap"
```

```
    rel="stylesheet"
```

```
    <link rel="preconnect"
```

```
href="https://fonts.googleapis.com" />
```

```
    <link rel="preconnect"
```

```
href="https://fonts.gstatic.com" crossorigin />
```

```
    <link
```

```
href="https://fonts.googleapis.com/css2?family=Tangerin  
e:wght@400;700&display=swap"
```

```
    rel="stylesheet"
```

```
    <link rel="preconnect"
```

```
href="https://fonts.googleapis.com" />
```

```
    <link rel="preconnect"
```

```
href="https://fonts.gstatic.com" crossorigin />
```

```
    <link
```

```
href="https://fonts.googleapis.com/css2?family=Poppins:  
ital,wght@0,100;0,200;0,300;0,400;0,500;0,600;0,700;0,8  
00;0,900;1,100;1,200;1,300;1,400;1,500;1,600;1,700;1,80  
0;1,900&family=Tangerine:wght@400;700&display=swap"
```

```
    rel="stylesheet"
```

```
    <link
```

```
    rel="stylesheet"
```

```
        href="{{ url_for('static',
filename='styles/style.css') }}"
    />

    <link
        rel="icon"
        href="{{ url_for('static',
filename='images/youtube6.svg') }}"
    />
    <meta charset="UTF-8" />
    <meta
        name="viewport"
        content="width=device-width, initial-scale=1.0 ,
user-scalabe=0 maximum-scale=1.0"
    />
    <title>PocketTube</title>
</head>
<body>
    <div id="loading-screen">
        
        <div id="loading">
            <h1>Loading Page</h1>
        </div>
        <div id="fact-container"></div>
    </div>

    <div id="nav">
        <img
            src="static\images\youtube7.svg"
            alt="youtube"
```



```

        draggable="false"
        id="youTube"
    />
    <p onclick="index()">Home</p>
    <p id="curr">About us</p>
</div>

<video class="video-background" autoplay loop
muted>
    <source
        src="static\video\staticBackground1.mp4"
        type="video/mp4"
        playsinline
    />
</video>

<center id="vercenter">
    <div id="body">
        <div class="card">
            <h1>Who We Are</h1>
            <p>
                We are a dedicated team of four individuals
working together on our
                sixth-semester project :
            </p>
            <ul style="list-style: none; padding: 0">
                <li><b>Md Salhe Allsabab</b></li>
                <li><b>Shubham Mishra</b></li>
                <li><b>Sharib Ejaz</b></li>
                <li><b>Syam Babu Mahto</b></li>
            </ul>

```

<p>

As a small group, we bring diverse perspectives, skills, and enthusiasm to the table, collaborating effectively to bring our ideas to life. This project is a reflection of our hard work and determination, showcasing our ability to learn, grow, and achieve as a cohesive unit. Together, we aim to create something impactful and memorable, demonstrating the strength of teamwork and innovation.

</p>

</div>

<div class="card">

<h1>What does this project do</h1>

<p>

This project is designed to streamline the process of converting

YouTube videos into MP4 format , enabling users to easily

download them for sharing and archiving purposes

>. By offering a simple and efficient solution, it ensures that

videos can be preserved offline, shared across various platforms, or

stored for future use without relying on an internet connection.

With its user-friendly approach, this project aims to enhance accessibility and convenience, making video management effortless and versatile.

</p>
</div>

<div class="card">
<h1>A Thank You to Ishrat Ma'am</h1>
<p>
Today, we celebrate the privilege of having Ishrat Parween Ma'am as our mentor—a visionary whose open-mindedness empowers us to diverge from the conventional. Her support allowed us to embrace a project that defies traditional academic constraints by converting YouTube share links into downloadable mp4 and mp3 files.

</p>

<h1>Breaking Free from Conventional Constraints</h1>

<p>
Most academic frameworks might dismiss such project ideas as "irrelevant" or misaligned with an old-style syllabus. However,

Ishrat Ma'am approved our initiative with unwavering confidence, recognizing its significant practical value. Our project not only serves everyday users who wish to preserve multimedia content, but it also unlocks creative potential for memers. By tapping into YouTube's vast collection, our tool enables memers to download a wide array of meme templates, among other creative resources. It can also be used for extracting clips for educational content, social media highlights, and more—making it a versatile solution for diverse needs.

</p>

<h1>A Bold Vision for Real-World Impact</h1>

<p>

Unlike mentors who might channel us toward a confined and conventional path, Ishrat Ma'am's bold approach has allowed us the freedom to follow our interests. Her support set us on an unconventional route with the potential to evolve into an outcome-oriented SaaS product if developed seriously. By embracing

innovation over tradition, she has empowered us to experiment, innovate, and create solutions that spark creativity across various communities, including those who use the project for both practical purposes and humorous content creation.

With Heartfelt Gratitude

We are deeply grateful to Ishrat Ma'am for her forward-thinking mindset and the trust she placed in our vision. Her willingness to back an idea that many might have rejected, due to outdated academic strictness, has opened up opportunities for us to build something truly transformative. Thank you, Ishrat Ma'am, for empowering us to break free from conventional boundaries and for inspiring us to create a tool that meets real-world demands and fuels creative innovation.

With sincere appreciation,
We, the Team

```
</div>
</center>
```

```
<div id="foot">
  <p>Engineered With</p>
  <span>&hearts;</span>
  <br />
  <p>At <span id="gpd">GP Dhanbad</span></p>
</div>
```

```
<script>
  const facts = [
    "A.P.J. Abdul Kalam revolutionized India's
missile and space programs, earning him the nickname
'Missile Man of India'.",
    "Dr. Vikram Sarabhai, known as the father of
the Indian space program, was instrumental in founding
ISRO.",
    "Homi J. Bhabha established India's nuclear
research program, laying the foundation for its nuclear
energy sector.",
    "Satish Dhawan pioneered modern rocket design
in India and helped develop launch vehicles like the
SLV and PSLV.",
    "N.R. Narayana Murthy co-founded Infosys,
transforming India's software services industry on the
global stage.",
    "Azim Premji transformed Wipro from a small
company into a global IT powerhouse by emphasizing
innovation.",
```

"Nandan Nilekani spearheaded the development of Aadhaar, the world's largest biometric identification system.",

"Dr. Tessy Thomas, often called the 'Missile Woman of India', led critical missile development projects.",

"Dr. Raghunath Mashelkar introduced modern biotechnology research in India with lasting public health benefits.",

"Dr. C.N.R. Rao's groundbreaking work in solid-state and materials chemistry has influenced multiple technology fields.",

"Vikram Lall played a significant role in promoting and nurturing key tech startups across India.",

"Rakesh Kapoor contributed to the transformation of business operations through innovative IT solutions.",

"Govindarajan Ramaswamy developed technology solutions that have empowered rural communities in India.",

"Dr. Manmohan Singh, before his tenure as Prime Minister, contributed to economic policies that spurred tech growth.",

"Sundar Pichai, an Indian-born visionary, has led Google to innovate and grow its product ecosystem.",

"Sanjay Mehrotra co-founded SanDisk, revolutionizing flash memory technology worldwide.",

"Vinod Dham, known as the 'Father of the Pentium chip', played a pivotal role in the evolution of personal computing.",

"Shiv Nadar founded HCL Technologies, which emerged as one of India's leading global IT services companies.",

"Kris Gopalakrishnan co-founded Infosys and helped shape India's reputation in the global IT industry.",

"Narayana Murthy's vision and ethical leadership have set benchmarks for Indian technology entrepreneurs.",

"Padmasree Warrior broke glass ceilings in semiconductor technology and leadership, inspiring future generations.",

"Arvind Krishna, now CEO of IBM, has driven innovation in cloud computing and artificial intelligence.",

"Saurabh Mittal has led initiatives that improved digital payment systems, influencing India's shift toward cashless transactions.",

"Deepinder Goyal, founder of Zomato, revolutionized food industry logistics and digital ordering in India.",

"Byju Raveendran pioneered digital education platforms, expanding learning opportunities for millions of Indians.",

"Vijay Shekhar Sharma, the founder of Paytm, played a key role in popularizing mobile payments and the digital economy.",

"Bhavish Aggarwal co-founded Ola and transformed urban mobility through technology-driven transportation solutions.",

"Kunal Bahl, co-founder of Snapdeal, helped redefine the e-commerce landscape for Indian consumers.",

"Ritesh Agarwal founded OYO Rooms, using technology to standardize and disrupt the hospitality sector.",

"Falguni Nayar created Nykaa, leveraging digital platforms to empower and redefine beauty retail in India.",

"Suhas Gopinath became one of the youngest entrepreneurs by launching a tech company at an early age.",

"Raghav Bahl pioneered digital journalism, setting new standards for online media in India.",

"Kiran Mazumdar-Shaw built Biocon into one of Asia's leading biotech firms through innovation and research.",

"Vineet Nayar reinvented management practices at HCL Technologies, emphasizing empowerment and customer-centricity.",

"Dr. Kiran Kumar's contributions in robotics and AI research have advanced technology in India's industrial sectors.",

"Manoj Bhargava created innovative and cost-effective solutions to address global energy challenges from an Indian perspective.",

"S. Somasegar has held key leadership roles bridging Indian talent with global technology giants.",

"Sam Pitroda was instrumental in telecom reforms that laid the groundwork for India's digital revolution.",

"Vinod Khosla, co-founder of Sun Microsystems, has been a major influence on technology investments with Indian roots.",

"S. D. Shibulal leveraged his expertise at Wipro to drive innovation and enhance corporate governance in tech.",

"Subhash Khot's introduction of the Unique Games Conjecture has influenced theoretical computer science globally.",

"K. Radhakrishnan, an ISRO veteran, contributed significantly to the success of India's space missions.",

"Raj Reddy, a pioneer in artificial intelligence, has influenced robotics research and education worldwide.",

"Munish Chandra Purani developed digital solutions for environmental monitoring, impacting India's sustainability efforts.",

"Dr. M.R. Narasimhan advanced computational fluid dynamics research, contributing to innovations in engineering.",

"K. Ananth Krishnan was recognized for developing cost-effective digital solutions in India's agricultural sector.",

"M. Gopalakrishnan has mentored numerous startups by sharing his expansive knowledge in computing innovations.",

"S.R. Sankaran significantly advanced semiconductor research, contributing to India's growing electronics industry.",

"Dr. Rangan Banerjee's work in quantum computing is paving the way for next-generation tech research in India.",

"Vijay Kelkar helped reshape digital finance by contributing to the development of secure online banking systems.",

"Arunachalam Muruganantham invented low-cost medical devices, using engineering to solve rural health challenges.",

"Sangeeta Bhatia's breakthroughs in micro/nano technology have revolutionized healthcare diagnostics.",

"Dr. Rohini Godbole contributed to particle physics, representing India at major international scientific forums.",

"S.G. Sampath developed critical software systems that bolstered the efficiency of India's banking infrastructure.",

"Anil Ambani's ventures in telecom and media spurred digital transformations across multiple Indian enterprises.",

"Dr. Pavan Varshneya's research in computational neuroscience has broadened the understanding of AI applications.",

"Arun Netravali, a pioneer in digital video technology, has influenced standards that benefit both India and the world.",

"Dr. Rajendra Pachauri integrated technology with environmental activism to improve data collection in India.",

"Giriraj Kaushik led innovations in mobile app development, enhancing user experience in Indian tech products.",

"Dr. S.R. Kale designed scalable IT architectures that have powered many of India's high-growth tech companies.",

"Dr. Suresh Reddy's pioneering research in cybersecurity has fortified India's digital infrastructures.",

"Deepak Parekh fostered digital banking innovations that helped modernize financial services in India.",

"Dr. Ramesh Raskar's work in computational imaging is setting new directions for medical diagnostics in India.",

"S. Raghu developed affordable technology solutions that made digital education more accessible across India.",

"Dr. Kapil Gupta's advances in digital healthcare have driven the expansion of telemedicine initiatives.",

"Sunil Bharti Mittal transformed Airtel into a tech-driven communications giant connecting millions.",

"Dr. Rajesh Gopinathan steered major Indian corporations toward digital innovation and strategic transformation.",

"Dr. Venkatesh Narayanamurthy's contributions in information systems and big data analytics have modernized business practices.",

"G. Srinivasan played a foundational role in establishing India's software export industry.",

"Dr. S. Prakash empowered Indian startups by sharing insights on artificial intelligence and machine learning trends.",

"Dr. Himanshu Bhatnagar developed innovative agricultural technologies that enhanced productivity on a national scale.",

"Dr. Sandeep Singh advanced nanotechnology research, contributing to breakthroughs in advanced material sciences.",

"Ashok Gupta was an early adopter of computer technology, helping modernize key industries during the digital revolution.",

"Dr. Surajit Chatterjee's developments in wireless communications have significantly improved India's connectivity.",

"Bharat Desai, as co-founder of Syntel, pioneered outsourcing and global delivery models from India.",

"Dr. Inderjit Singh led initiatives in microelectronics, driving semiconductor research in Indian laboratories.",

"Dr. Pankaj Kumar has explored the role of AI in sustainable technology development, impacting eco-friendly innovations.",

"Dr. V.R. Raghavan is renowned for his research in optical communications and photonics, bolstering India's tech edge.",

"Uday Kumar was a key figure in developing mobile solutions tailored for the dynamic Indian consumer market.",

"Dr. Santosh Patil's work in embedded systems has propelled advancements in automotive technologies across India.",

"Manoj Bhatt created scalable IT infrastructure solutions that modernized educational institutions in India.",

"Dr. Ashok Shenoy advanced cloud computing innovations, influencing India's digital transformation policies.",

"Sudhir Joshi launched multiple startups, demonstrating entrepreneurial spirit in India's digital technology arena.",

"Dr. Lalit Gupta specialized in robotics and automation, significantly enhancing manufacturing processes in India.",

"Ravi Gupta pioneered IT solutions that improved operational efficiencies across Indian industries.",

"Dr. U.N. Verma contributed breakthrough research in information theory that spurred academic and practical innovations.",

"Anand Kumar integrated technology into his renowned Super 30 program, revolutionizing education in India.",

"Dr. Jai Prakash developed robust software systems for critical government projects across India.",

"Pramod Kumar implemented early digital marketing strategies that laid the groundwork for India's e-commerce boom.",

"Dr. Ashok Kumar's work in signal processing created the foundation for modern communication systems in India.",

"Hemant Patel earned recognition for advancing data analytics and business intelligence in Indian startups.",

"Dr. Vijay Kumar pushed the frontiers of drone technology and robotics, driving automated systems research.",

"Suresh Iyer played an influential role in pioneering integrated circuit technologies in early Indian tech industries.",

"Dr. Mukund Agarwal developed innovative software solutions that have improved healthcare outcomes in India.",

"Dr. Raman Gupta propelled renewable energy research, creating sustainable tech applications for rural India.",

"Dr. R.K. Sharma's work in computational bioinformatics opened vast new avenues for biotech innovation in India.",

"S. Venkatesan's contributions in precision engineering have been vital in advancing India's high-tech manufacturing.",

"Dr. Manish Joshi integrated innovative digital payment solutions, transforming financial platforms across India.",

"Dr. Aniruddha Malpani led research into machine learning algorithms tailored to solve challenges in the Indian market.",

"Dr. Sandip Tripathi drove innovations in Internet-of-Things applications to power smart city initiatives in India.",

"Dr. Umesh Mishra's work in composite materials has led to breakthroughs in product design and engineering innovations.",

"Dr. R.K. Verma significantly advanced biometric security technologies, strengthening digital defenses in India.",

"Rudra Prasad introduced early computer networking concepts that laid the groundwork for India's IT infrastructure.",

"Dr. Ajay Mehra pioneered optical fiber communication technologies, enhancing connectivity across India.",

"Dr. Kumar P. Sant advised major industries on digital transformation strategies, shaping the future of Indian IT.",

"Dr. S.K. Singh's work in high-performance computing propelled academic and industrial research throughout India.",

"R.K. Verma's legacy in signal processing continues to inspire a generation of telecommunications engineers in India.",

"Dr. Apurva Arora developed early e-governance platforms that streamlined administrative processes nationwide.",

"Dr. Uday Singh's groundbreaking work in cybersecurity has helped build resilient digital infrastructures.",

"Dr. P.K. Reddy paved the way for innovative software development methodologies in India's IT firms.",

"Dr. Anil Joshi innovated cost-effective semiconductor fabrication processes that propelled the electronics industry.",

"Dr. Rajeev Kumar's algorithm development research has significantly advanced data science projects in India.",

"Sanoj Singh co-founded tech startups that transformed digital service delivery for Indian consumers.",

"Dr. Anoop Menon is renowned for his advances in artificial intelligence within Indian healthcare technology.",

"Shrinivas Kulkarni advanced statistical methods for large data set analysis in Indian scientific research.",

"Dr. Balaji Srinivasan influenced blockchain and digital currency innovations with a distinct Indian perspective.",

"Dr. Kunal Verma's work in computational modeling has set the stage for advanced engineering projects across India.",

"Dr. Aditya Balasubramanian pioneered next-generation wireless communication technologies in India.",

"Dr. Vijay Menon's breakthroughs in nanotechnology have led to the development of smart materials for tech applications.",

"Dr. Pradeep Sharma's research in computer vision has advanced biometric and surveillance systems in India.",

"Girish Wagh emerged as a prominent tech leader, driving digital transformation within India's corporate sectors.",

"Dr. Abhishek Lodhak has been a pioneer in implementing cost-effective rural internet infrastructure projects.",

"Dr. Sumit Roy's innovations in communication protocols have significantly enhanced digital network reliability.",

"Dr. Amitabh Bose developed real-time data processing algorithms that have optimized operations in Indian tech firms.",

"Dr. Manjunath Patil's research in distributed systems has fueled cloud computing advancements in India.",

"Dr. Neeraj Sharma is recognized for advancing cybersecurity frameworks in Indian research institutions.",

"Dr. Shailendra Rao's pioneering work in electronic design automation reshaped India's semiconductor industry.",

"Dr. Prakash Iyer revolutionized fintech with secure, scalable digital transaction technologies across India.",

"Dr. R.S. Menon's contributions in signal processing and integrated circuits laid foundations for the electronics sector.",

"Dr. Sandeep Gupta propelled IoT and smart home innovations designed specifically for Indian consumers.",

"Dr. Mukesh Kumar has been instrumental in developing machine learning models to solve complex challenges in India.",

"Dr. Jitendra Singh's research in data mining has significantly influenced digital marketing strategies among Indian companies.",

"Dr. Pradeep Sengupta advanced neural network research that continues to drive AI applications in India.",

"Dr. Sanjay Kapoor's contributions in big data and cloud computing have bolstered emerging technologies in India.",

"Dr. Ashwin Varghese's work in wireless sensor networks has driven connectivity solutions for smart cities in India.",

"Dr. Shyam Sundar's innovations in digital logistics have modernized supply chain management across the country.",

"Dr. Milan Jha's research in applied mathematics and computational algorithms has influenced tech research nationwide.",

"Dr. Harish Bhatnagar pioneered medical technology innovations that transformed healthcare diagnostics with IT solutions.",

"Dr. Anurag Rathore developed secure digital communication protocols vital for enhancing IT security in India.",

"Dr. Vijay Khanna led initiatives to create affordable tech solutions for educational institutions across India.",

"Dr. Prashant Reddy's work in cloud analytics paved the way for scalable digital infrastructure in Indian businesses.",

"Dr. Rakesh Sinha is celebrated as a mentor and visionary in pioneering artificial intelligence in Indian tech.",

"Dr. S.M. Kapoor's research in geoinformatics has advanced satellite-based mapping and navigation capabilities.",

"Dr. Rajiv Chopra played an influential role in the evolution of digital learning platforms in Indian education.",

"Dr. Mukul Sharma's groundbreaking work in virtual and augmented reality is setting new paradigms in Indian tech.",

"Dr. Praveen Kumar pioneered robust cybersecurity protocols that help secure India's expanding digital economy.",

"Dr. Abhay Mehta's innovations in software engineering have greatly enhanced the scalability of IT solutions in India.",

"Dr. Ashok Narayan transformed tech education by integrating hands-on computer science projects into India's curricula.",

"Dr. Mahesh Kulkarni's pioneering research in quantum computing is poised to redefine technological paradigms in India.",

"Dr. Suresh Verma has consistently championed digital innovation, inspiring a new generation of Indian tech entrepreneurs.",

];

```
function displayRandomFact() {  
    const randomIndex = Math.floor(Math.random() *  
facts.length);  
    const randomFact = facts[randomIndex];
```

```
document.getElementById("fact-container").innerHTML =  
randomFact;  
}
```

```
function hideLoadingScreen() {  
    const loadingScreen =  
document.getElementById("loading-screen");  
    loadingScreen.style.display = "none";  
}
```

```
displayRandomFact();
```

```
// Simulate a delay to show the loading screen  
setTimeout(hideLoadingScreen, 3000);
```

```
function index() {
```

```

        const currentURL = window.location.href;
        const urlObject = new URL(currentURL);
        const port = urlObject.port;
        const homeRoute = port
            ?
`${urlObject.protocol}://${urlObject.hostname}:${port}`
            :
`${urlObject.protocol}://${urlObject.hostname}`;

        window.location.href = homeRoute;
    }

    document.addEventListener("visibilitychange",
function () {
    if (document.visibilityState === "visible") {
        // Reload the page when the tab becomes
visible
        location.reload();
    }
});
</script>
</body>
</html>

```

Style.css :

```

* {
    margin: 0;

```

```
padding: 0;
box-sizing: border-box;
user-select: none;
/* Ensures consistent sizing */
}

hr {
border: none;
border-top: 3px solid red;
margin: 20px 0;
}

video {
border-radius: 10px; /* Adds rounded corners */
overflow: hidden; /* Ensures the content respects the
border radius */
}

/* HTML and Body Styles */
html,
body {
min-width: 320px;
min-height: 479px;
width: 100%;
height: 100%;
margin: 0;
padding: 0;
overflow-x: hidden;

/* Prevent horizontal scrolling */
}
```

```
/* Navigation Bar */
#nav {
  height: 70px;
  /* Adjust height to give enough space */
  width: 100%;
  padding: 20px;
  background-color: #0b0b0b;
  border-bottom-right-radius: 10px;
  border-bottom-left-radius: 10px;
  display: flex;
  align-items: center;
  justify-content: space-evenly;
  /* Spaces items evenly across the nav bar */
  position: fixed;
  top: 0;
  left: 0;
  z-index: 1000;
  font-family: "Nunito Sans", sans-serif;
  /* Keeps the navigation bar above everything else */
  box-shadow: 0px 4px 10px rgba(0, 0, 0, 0.1);
  vertical-align: baseline;
  /* Adds a subtle shadow */
}

#youtube {
  width: 100px;
  pointer-events: none;
  height: auto;
}
```



```
#nav > p {
  font-size: 15px;
  color: whitesmoke;
  cursor: pointer;
  font-family: "Nunito Sans", sans-serif;
  margin: 0;
  /* Ensure consistent alignment */
}

#curr {
  text-decoration: underline;
  text-decoration-color: red;
  text-underline-offset: 4px;
  font-size: 15px;
  font-family: "Nunito Sans", sans-serif;
  color: whitesmoke;
}

#nav > p:hover {
  color: red;
}

/* Grey Box Container */
#body {
  height: auto;
  width: 90vw;
  max-width: 600px;
  background: radial-gradient(circle at 90% 10%,
#acababee, #d6d6d6e4);
  border-radius: 10px;
  border: 1px solid black;
  padding: 20px;
```

```
display: flex;
flex-direction: column;
margin: 80px auto;
font-family: "Nunito Sans", sans-serif;
align-items: center;
justify-content: center;
/* Keeps the box centered */
box-shadow: 0px 4px 10px rgba(0, 0, 0, 0.1);
/* Adds a subtle shadow */
}

/* Input Field */
#url {
  font-size: 20px;
  width: 90%;
  /* Full width for responsiveness */
  max-width: 500px;
  /* Prevents the input from being too large */
  padding: 10px;
  outline: none;
  text-align: center;
  border: 0px;
  border-radius: 10px;
  font-family: "Nunito Sans", sans-serif;
  margin-bottom: 20px;
}

#url:focus {
  border: 1px solid black;
}
```

```
/* Button Container */
#btn {
  display: flex;
  flex-wrap: wrap;
  align-items: center;
  justify-content: center;
  font-family: "Nunito Sans", sans-serif;
  width: 100%;
  gap: 15px;
}

#videoContainer {
  display: none;
  /* Enable Flexbox for layout */
  flex-direction: column;
  /* Stack elements vertically */
  justify-content: center;
  /* Center elements vertically */
  align-items: center;
  /* Center elements horizontally */
  margin-bottom: 80px;
  margin-top: 20px;

  height: auto;
  width: 90vw;
  max-width: 600px;
  background: radial-gradient(circle at 90% 10%,
#acababee, #d6d6d6e4);
  border-radius: 10px;
  border: 1px solid black;
  padding: 20px;
```

```
/* margin: 80px auto; */
font-family: "Nunito Sans", sans-serif;
align-items: center;

justify-content: center;
/* Keeps the box centered */
box-shadow: 0px 4px 10px rgba(0, 0, 0, 0.1);
/* Adds a subtle shadow */
}

#videoContainer > h2 {
  font-family: "Nunito Sans", sans-serif;
  text-align: left;
  color: #0b0b0b;
  text-decoration: underline;
  text-underline-offset: 4px;
}

/* Buttons */
#fire {
  font-size: 12px;
  background-color: black;
  padding: 10px 20px;
  filter: none;
  border-radius: 10px;
  font-family: "Nunito Sans", sans-serif;
  border: none;
  color: whitesmoke;
  -webkit-tap-highlight-color: transparent;
  cursor: pointer;
  display: flex;
  align-items: center;
```

```
    justify-content: center;
    gap: 5px;
    white-space: nowrap;
}

#fire > img {
    width: 20px;
    height: 20px;
    pointer-events: none;
    user-select: none;
    /* Prevents dragging */
}

#fire:focus,
#fire:active {
    outline: none;
    /* Remove focus outline */
    filter: none;
    /* Remove any applied filters */
    background-color: #343434;
    /* Ensure no background overlay */
}

/* Footer */
#foot {
    height: auto;
    width: 100%;
    padding: 5px;
    background-color: rgb(11, 11, 11);
    border-top-right-radius: 10px;
    border-top-left-radius: 10px;
}
```

```
text-align: center;
position: fixed;
bottom: 0;
font-family: "Nunito Sans", sans-serif;
align-items: center;
justify-content: center;
}

#foot > p {
  font-size: 15px;
  color: whitesmoke;
  font-family: "Nunito Sans", sans-serif;
}

#foot > span {
  color: rgb(217, 35, 35);
  /* Ensures the ♥ is red */
  font-size: 18px;
}

/* Responsive Design for Smaller Screens */
@media screen and (max-width: 600px) {
  #btn {
    flex-direction: column;
    /* Stacks buttons vertically */
    gap: 10px;
    /* Adds spacing between buttons */
  }

  #body {
    width: 95vw;
  }
}
```

```
    /* Slightly reduce width on smaller screens */
  }

#videoContainer {
  width: 95vw;
  /* Slightly reduce width on smaller screens */
}

#url {
  width: 95%;
  /* Adjust input field width */
}
}

.card > p {
  font-size: 16px;
  color: #0b0b0b;
  font-family: "Nunito Sans", sans-serif;
  text-align: left;
}

.card > h1 {
  font-size: 30px;
  color: #0b0b0b;
  font-family: "Nunito Sans", sans-serif;
  text-align: left;
  text-decoration: underline;
  text-underline-offset: 4px;
}

.card {
```

```
    margin-top: 10px;
}

.card > ul {
    font-size: 16px;
    color: #0b0b0b;
    font-family: "Nunito Sans", sans-serif;
    text-align: left;
}

.card > p > span {
    font-family: "Tangerine", cursive;
    font-weight: 1000;
    font-style: normal;
}

hr {
    height: 2px;
    background-color: #bf0000;
    margin: 20px 0;
}

.video-background {
    position: fixed;
    top: 0;
    left: 0;
    width: 100%;
    height: 100%;
    object-fit: cover;
    z-index: -1;
}
```



```
.content {  
  position: relative;  
  color: white;  
  font-family: "Poppins", sans-serif;  
  font-weight: 400;  
  font-style: normal;  
  text-align: left;  
  padding-top: 50px;  
  padding-left: 20px;  
  z-index: 1;  
}
```

```
#loading-screen {  
  position: fixed;  
  top: 0;  
  left: 0;  
  width: 100%;  
  height: 100%;  
  background-image: radial-gradient(  
    circle at 90% 10%,  
    #acabab,  
    rgb(43, 43, 43)  
  );  
  display: flex;  
  flex-direction: column;  
  padding: 10px;  
  color: #eeeeee;  
  justify-content: center;  
  align-items: center;  
  padding-left: 20px;
```

```
    z-index: 9999999;
}

#loading-screen > img {
    width: 80px;
    height: auto;
    user-select: none;
    pointer-events: none;
}

#fact-container {
    font-size: 20px;
    margin-bottom: 20px;
    text-align: left;
    font-family: "Poppins", sans-serif;
    font-weight: 200;
    font-style: normal;
}

#loading {
    font-family: "Poppins", sans-serif;
    font-weight: 400;
    font-style: normal;
    text-align: center;
    text-decoration: underline;
    text-underline-offset: 6px;
    padding: 20px;
    margin-bottom: 10px;
}

#loading > h1 {
```

```
    text-align: center;
}

#gpd {
    font-weight: 600;
    color: #eeeeee;
    text-shadow: 0 0 5px rgba(230, 248, 248, 0.9),
        0 0 10px rgba(230, 248, 248, 0.8), 0 0 15px
        rgba(230, 248, 248, 0.7),
        0 0 20px rgba(230, 248, 248, 0.6), 0 0 25px
        rgba(230, 248, 248, 0.5);
}

#saveBtn , #logOut
{
    background-color: #eeeeeeee3;
    border-radius: 10px;
    text-align: center;
    padding: 5px;
    box-sizing: border-box;
    color: #0b0b0b;
    outline: none;
    border: 0px;
    font-family: "Nunito Sans", sans-serif;
    font-weight: bold;
}

label{
    font-family: "Nunito Sans", sans-serif;
}
```

```
#settings {  
  width: 15px;  
  height: 15px;  
  -webkit-tap-highlight-color: transparent;  
  cursor: pointer;  
}
```

```
#nameInput  
{  
  background-color: #acabab22;  
  border-radius: 10px;  
  text-align: left;  
  padding: 5px;  
  width: 100px ;  
  box-sizing: border-box;  
  color: #eeeeee;  
  outline: none;  
  border: 0px;  
  font-size: 20px;  
  font-family: "Tangerine", cursive;  
  font-weight: 1000;  
  font-style: normal;  
}
```

```
.dropdown {  
  display: none; /* Hidden by default */  
  position: absolute;  
  color: #eeeeee;  
  width: 100vw;  
  height: auto;  
  padding-top: 20px;
```

```
top: 60px; /* Position below the image */
background-color: #0b0b0b;
flex-direction: column;
border: 0px ;
padding: 10px;
align-items: center;
border-bottom-left-radius: 10px;
border-bottom-right-radius: 10px;

justify-content: space-evenly;
box-shadow: 0px 8px 16px rgba(0, 0, 0, 0.2);
z-index: 1000;
}
```

Terminal Commands : (must to be used in powerShell)

For Installing Modules :

```
pip install flask
pip install pytube
pip install pytubefix
pip install qrcode
Pip install device_detector
```

For running the project :

```
start-job -scriptblock{cloudflared tunnel --url
localhost:5000 *> "logs\out.txt"}
start-sleep -seconds 10
start-job -scriptblock{python app.py}
```

```
start-sleep -seconds 10  
start-job -scriptblock{python QRGenerate.py}  
start-sleep -seconds 5  
start-job -scriptblock{"see qrcode folder"}
```

For terminating the project :

```
Get-Job | Stop-Job; Get-Job | Remove-Job; exit
```

Main components of project :

In index.html

There are too many features that deserve an honorable mention, but to keep the report concise, let's focus on the main two functions: `loadVideo` and `loadAudio` in the `index.html` file. These functions are the backbone of PocketTube's seamless multimedia processing capabilities, offering users an intuitive and efficient way to download video and audio files.

The `loadVideo` function is activated when the "Get MP4" button is clicked. It dynamically creates a responsive video player in the designated container, allowing users to preview the video before downloading. The function sets up the layout with clean styling, prevents unwanted interactions like right-clicking, and handles errors gracefully by displaying an informative message if the video fails to load. Additionally, it provides a "Download Video" button, which includes a brief waiting period and a user-friendly design. After three seconds, a programmatic download link is generated,

enabling the user to save the video file effortlessly. This function exemplifies simplicity, interactivity, and robust design.

The loadAudio function works similarly and is triggered by the "Get MP3" button. Instead of a video player, it dynamically creates an audio player in the specified container, complete with playback controls and protective measures against unintended interactions. Just like loadVideo, it ensures smooth user experience by handling errors effectively and providing a "Download Audio" button with a brief delay before initiating the download. The consistent design and functionality between both functions ensure users can access and download their desired multimedia files without complications.

Together, these two functions embody the core philosophy of PocketTube: delivering efficient, user-centric solutions while maintaining a polished and intuitive interface. Let me know if you'd like further details or refinements!

In app.py

This Python script forms the core of PocketTube and embodies the typical hustle of Indian engineers, seamlessly bridging frontend clicks with backend brilliance to facilitate YouTube video and audio downloads. The two main buttons, "Get MP4" and "Get MP3," are deeply rooted in the backend routes, `/video/path:url` and `/audio/path:url`, ensuring smooth data flow akin to a perfectly wired circuit board. *"Like chai meets samosa, frontend meets backend here, and the integration is flawless!"*

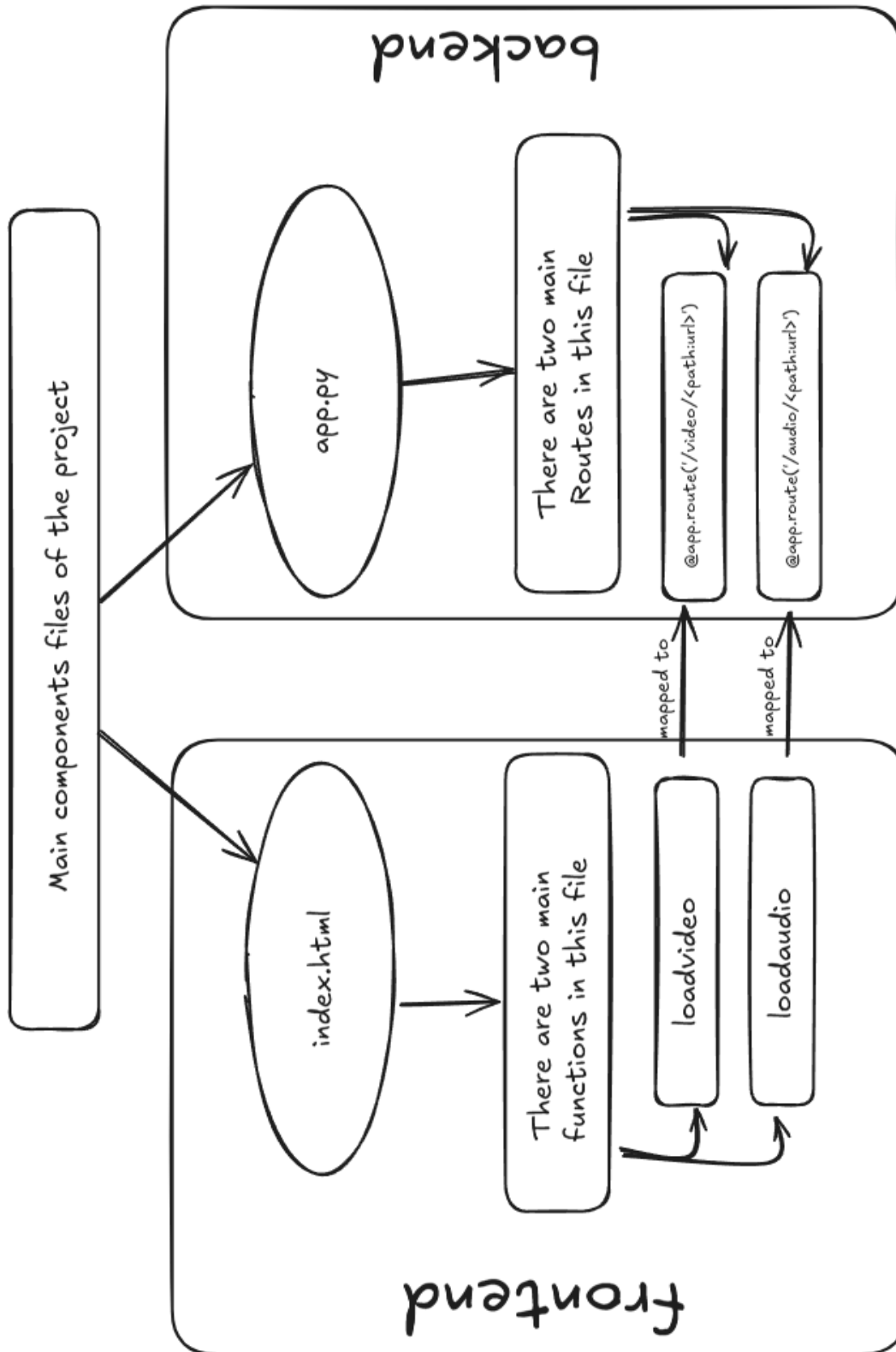
When the "Get MP4" button is clicked, the frontend activates the loadVideo function, sending the YouTube URL to the `/video/path:url` route. The backend tackles validation through `check_youtube_url`, ensuring no dodgy links pass through—like the seasoned engineer

catching bugs before deployment. Once the URL is authenticated, the `append_client_info` logs user details, maintaining observability in the system (because logs are like your project submissions, they just have to be in order!). The backend then processes the video using `getMpFour`, downloads the highest resolution file to the video directory, and sends it to the user using `send_file`. *"From client request to server response, this data pipeline is as optimized as a Mumbai local at peak hours!"*

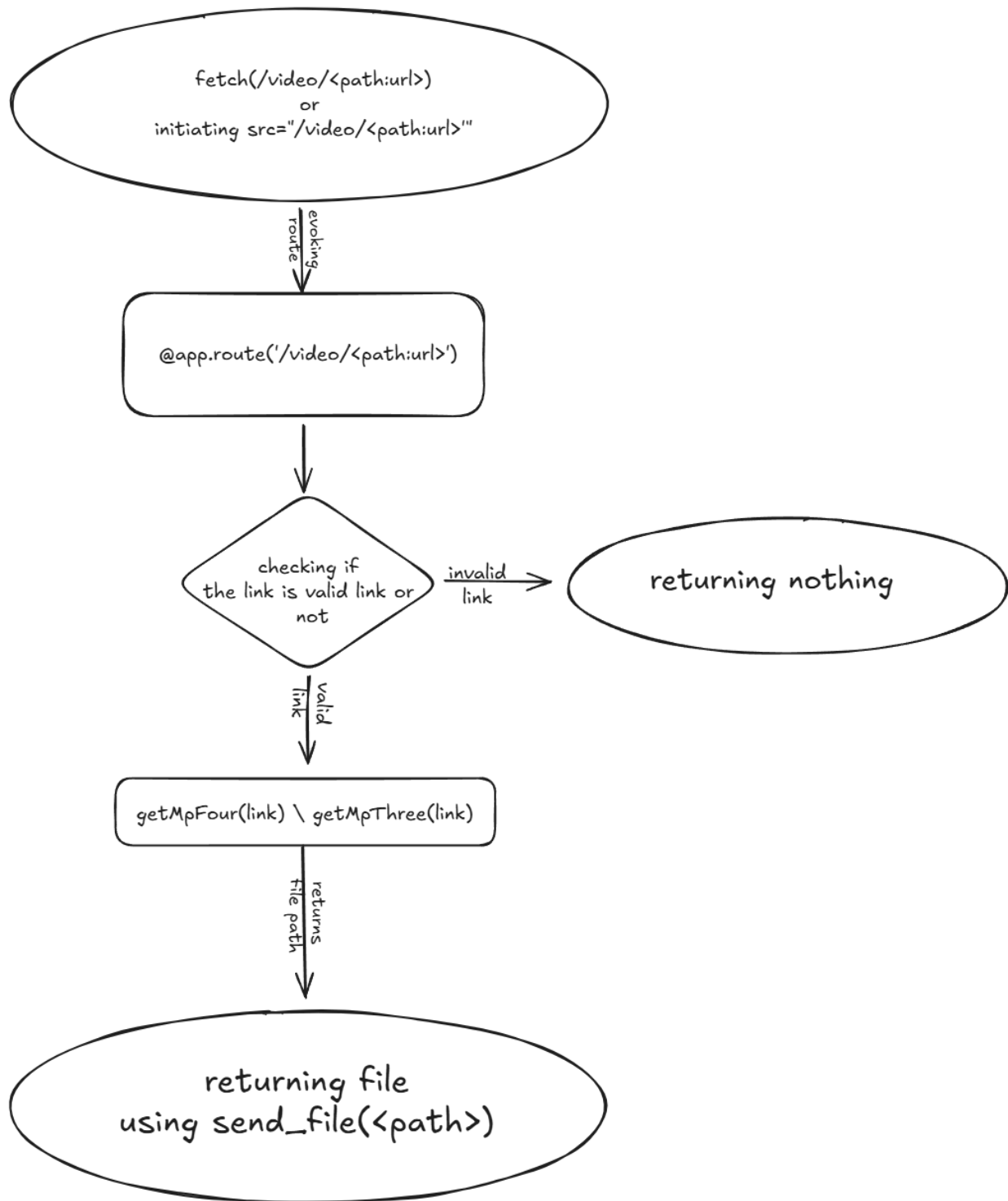
The "Get MP3" button channels the desi jugaad spirit for audio extraction. The frontend triggers the `loadAudio` function, sending the YouTube URL to the `/audio/path:url` route. The backend validates the URL, logs essential device and browser info, and processes the file through `getAudio`, filtering the audio stream with the precision of an Indian engineer debugging code the night before a demo. The MP3 file is downloaded to the audio directory and returned to the user, completing the loop with sheer efficiency. *"Like writing code during the semester and acing it in the viva—PocketTube delivers with finesse!"*

With flawless routing, optimal HTTP lifecycles, and well-coordinated frontend-backend synergy, this system embodies the engineering ethos that every Indian techie knows well. *"Scalable, modular, and crafted like a perfectly-optimized DSA solution—this project is an engineer's dream!"*

Alright, I know you skipped the text—don't worry, the diagram won't snitch on you!



How backend process the mp4 or mp3 file :



For quick hosting and sharing :

We used Cloudflare Tunnel to share our project safely and easily. It allows us to make the project available online without exposing our server directly to the internet. *Think of it as a secure gali (alley) that connects your localhost to the big bad internet, without letting the riff raff sneak in.* This tunneling technology makes it easy to share applications running on your local machine without spending hours battling server configurations or worrying about cyber threats.

This approach is especially useful for college projects in India, where showcasing proof of concept to professors, classmates, or even during fests and hackathons is a common practice. *Instead of struggling to set up servers, you can share your localhost with ease—saving precious chai breaks!* It's perfect for presentations, live demos, and getting your work noticed in competitive environments, all while keeping security intact.

Here are the pros and cons of Cloudflare Tunnel:

Advantages:

1. *Secure localhost sharing:* Protects your local machine while sharing your project online. *Your localhost gets the respect it deserves—a digital fort for your code.*
2. *No server headaches:* Sharing your project doesn't require setting up costly or complex servers. *Keep your budget intact for a plate of samosas!*

3. *Perfect for college projects*: Useful for hackathons, fests, or even class presentations. *Your project becomes the star, no stress required.*
4. *Easy setup*: Avoid frustrating networking issues. *You spend more time coding and less time Googling solutions.*
5. *Built-in protection*: Shields your app from unauthorized access and cyberattacks. *It's like putting your localhost in a Z-security blanket.*

Disadvantages:

1. *Latency*: Data takes a detour through Cloudflare servers, which can cause slight delays. *Patience, my friend—it's worth it.*
2. *Data restrictions*: Upload sizes or bandwidth could have limits. *Don't worry, it's enough for your next big idea.*
3. *Cloudflare dependency*: If their service goes down, your app takes a timeout too. *Hope Cloudflare never takes a chai break!*

Cloudflare Tunnel is a smart way to share localhost projects securely and is especially handy for college-level presentations and competitions in India. *It's like giving your localhost an e-rickshaw*

ride to the internet, minus the surge pricing (slow , secure and most importantly budget friendly i.e. nearly free).

Taming Cloudflare's Random URLs :

One of the major challenges with Cloudflare Tunnel is the dynamic URLs it generates every time. These URLs are often long, random, and unreadable, making them inconvenient to share effectively. In scenarios like college presentations, collaborations, or live demonstrations, this can create unnecessary delays and frustration, as sharing or typing these links becomes a cumbersome task.

The challenge of random and unreadable URLs generated by Cloudflare Tunnel might seem like a stumbling block—almost as if Cloudflare thought, *"Let's give them a captcha disguised as a URL!"* But instead of letting it slow us down, we decided to flex some creative muscles and turn this challenge into an opportunity. By converting these chaotic links into QR codes, we made sharing and accessing the project smooth and as exciting as solving a riddle you actually want to crack!

This approach transforms complexity into simplicity, combining wireless convenience with modern usability. Just like scanning a payment QR code makes the process quick and headache-free, scanning our project QR codes does the same—ensuring seamless access without the pain of typing random strings. It's so smooth, it's like the project is saying, "Don't stress, just scan!"

How We Convert Cloudflare's Dynamic URLs into Effortless QR Codes :

1. Start Cloudflare Tunnel:

- Begins a background job to create a Cloudflare Tunnel (cloudflared tunnel --url localhost:5000) with logs redirected to logs\out.txt.
- This ensures the tunnel is active and ready for use.

2. Pause for Initialization (10 seconds):

- Uses Start-Sleep to wait for 10 seconds, allowing the tunnel to fully initialize before the next step.

3. Launch Python Application:

- Starts another background job to run the Python script app.py, which presumably hosts the main application or service.

4. Pause for Application Initialization (10 seconds):

- Pauses for another 10 seconds to ensure the application has started properly.

5. Run QR Code Generator:

- Initiates a third background job to execute QRGenerate.py, which likely generates QR codes for the application's dynamic URLs.

6. Pause for QR Code Generation (5 seconds):

- Adds a 5-second delay to give the QR code generation script enough time to complete.

7. QR Code Folder Prompt:

- Starts a placeholder job with the instruction "see qrcode folder". (This part may need to be replaced by an actual command to open or access the folder.)

8. Pause for 30 Minutes:

- Pauses execution for 1800 seconds (30 minutes), allowing all processes and background jobs to run as needed.

9. Terminate All Jobs:

- Stops and removes all background jobs using Get-Job | Stop-Job and Get-Job | Remove-Job.
- Ensures that no leftover jobs continue to run.

10.Exit PowerShell:

- Ends the PowerShell session with the exit command, concluding all operations.

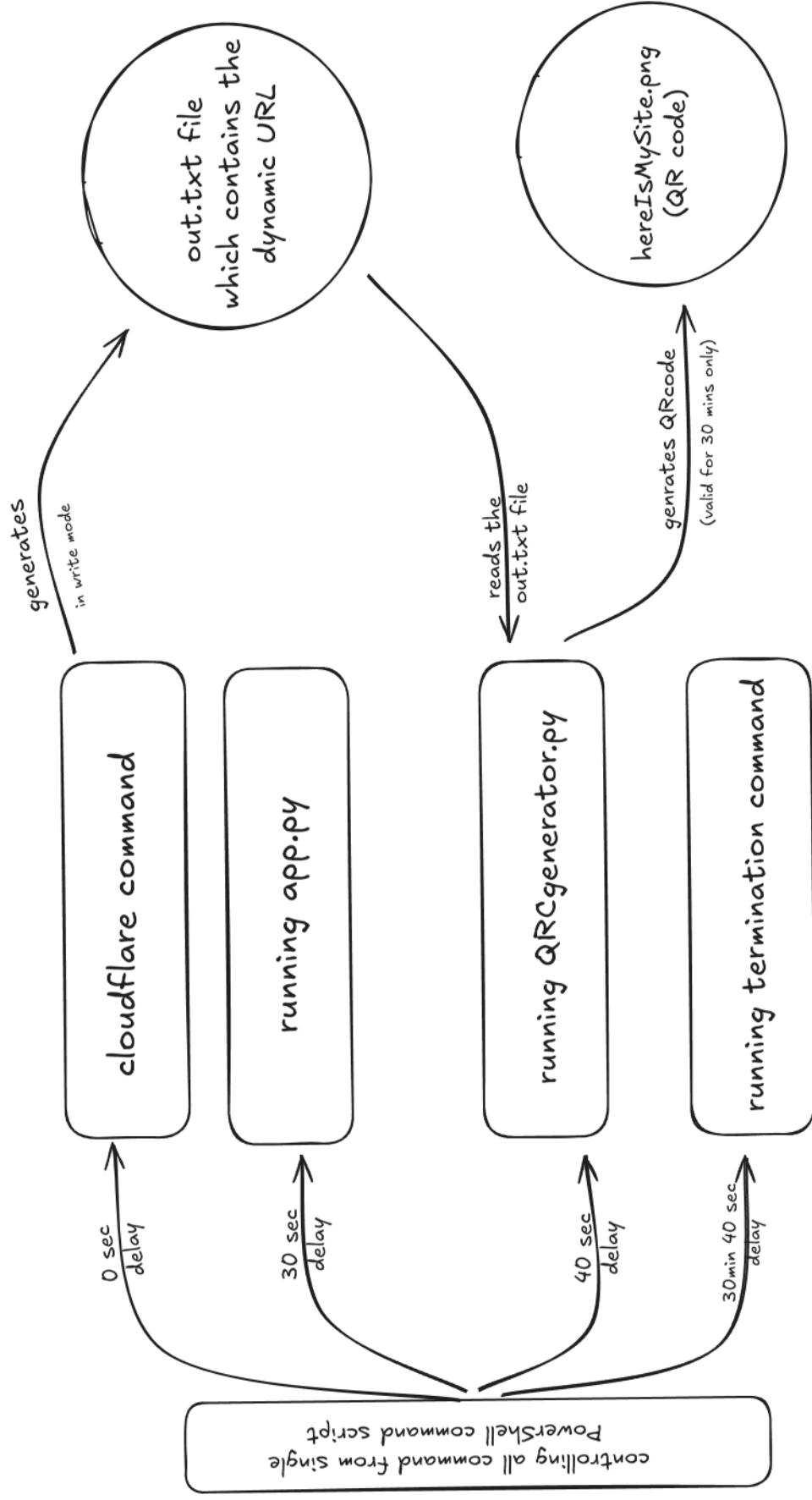
This script is designed to automate and streamline tasks in an orderly and efficient manner.

command :

```
start-job -scriptblock{cloudflared tunnel --url  
localhost:5000 *> "logs\out.txt"}  
  
start-sleep -seconds 10  
  
start-job -scriptblock{python app.py}  
  
start-sleep -seconds 10  
  
start-job -scriptblock{python QRGenerate.py}  
  
start-sleep -seconds 5  
  
start-job -scriptblock{"see qrcode folder"}  
  
Start-Sleep -Seconds 1800  
  
Get-Job | Stop-Job; Get-Job | Remove-Job; exit
```

command to install cloudflared :

```
winget install --id Cloudflare.cloudflared
```

Appendix :

Flask : <https://youtu.be/MsidHeW8cKo?feature=shared>

Pytube : <https://youtu.be/VgxnyKnB3qc?feature=shared>

CoPilot : <https://copilot.microsoft.com/>

cloudFlare : <https://developers.cloudflare.com/cloudflare-one/>

cloudFlare tunnel : <https://youtu.be/BnWfbv7Fy-k?feature=shared>

YouTube : <https://www.youtube.com/>

getWebGo : <https://getwebgo.netlify.app/>

Google fonts : <https://fonts.google.com/>

Google docs : <https://docs.google.com/>

Thanks Note:

Thank you for sticking with PocketTube! This project was built on a budget so small, we could call it 'pocket-friendly' in every sense. The money saved here could probably buy me a few extra samosas on a lovely rainy day—and that's a reward worth celebrating!

This journey taught me that big ideas don't need big budgets; they just need a little creativity and determination. My laptop also deserves a shout out—it worked overtime, sounding like a train engine, but it held on till the finish line.

Thank you for your support—it means a lot! This project is proof that with hard work (and some good jugaad), even small resources can create something amazing. Here's to more ideas, smarter solutions, and a samosa fund that keeps growing!

Thank you

We the team