Digital Portfolio

STUDENT NAME: A.ARAVINTH

REGISTER NO AND NMID: 2413312180251006 AND autanm31231224ucsc006

DEPARTMENT: B.SC COMPUTER SCIENCE

COLLEGE: GOVERNMENT ARTS AND SCIENCE COLLEGE RISHIVANDHIYAM

UNIVERSITY: ANNAMALAI

PROJECT TITLE

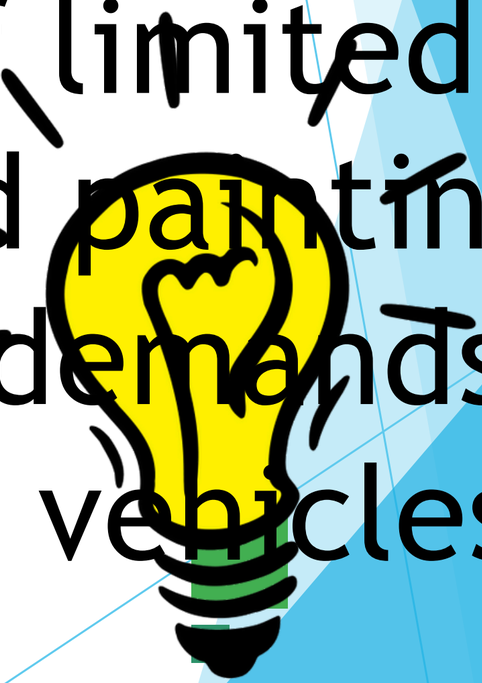
CREATING CAR MANUFACTURING PORTFOLIO FWD

AGENDA

1. Problem Statement
2. Project Overview
3. End Users
4. Tools and Technologies
5. Portfolio design and Layout
6. Features and Functionality
7. Results and Screenshots
8. Conclusion
9. Github Link

PROBLEM STATEMENT

optimizing production to maximize profit within constraints of limited resources (like assembly and painting hours) and evolving market demands, including shifting to electric vehicles.



PROJECT OVERVIEW

outlines a plan for a project related to automotive manufacturing, detailing its objectives, scope, and deliverables,

WHO ARE THE END USERS?

The end-users of a car manufacturing portfolio are diverse, but primarily include individual consumers, who purchase cars for personal use, as well as businesses and governments, who buy commercial vehicles for various operations, and are also involved in segments like shared mobility, which demand different types of vehicles.

Individual Consumers:

Personal Mobility: The largest segment, individuals buying cars, SUVs, and other personal vehicles for daily transportation, family use, and recreational purposes.

TOOLS AND TECHNIQUES

- Robotic Arms:
- Perform high-precision tasks like welding, painting, and installing components with speed and accuracy.
-
- CNC (Computer Numerical Control) Machines:
- Used for shaping and machining raw materials into precise vehicle parts.
-
- Conveyor Belts:
- Transport materials and parts throughout the factory, moving the car through different assembly stages.
-
- Torque Wrenches:
- Essential for tightening bolts and fasteners to specific, required torque values, ensuring vehicle safety and structural integrity.
-
- Jig Welders:
- Hold car parts in place while robotic welders join them, ensuring accuracy during the welding process.
-
- Automated Guided Vehicles (AGVs):
- Provide automated movement of parts and materials around the factory floor, supporting the assembly line.

POTFOLIO DESIGN AND LAYOUT

should use a clean, professional aesthetic with a consistent and easy-to-read layout, showcasing a designer's process from initial sketches to detailed renders, with a focus on the feasibility and practical application of the design to meet customer needs and brand identity. A website or interactive PDF is an ideal format, with each project framed as a compelling story that integrates the design's artistic vision with technical knowledge and practical feasibility.

Balance Vision and Practicality: Include futuristic, bold designs alongside realistic, production-ready concepts to demonstrate problem-solving abilities and an understanding of real-world constraints.

FEATURES AND FUNCTIONALITY

advanced automation and robotics, AI-powered quality control, and the assembly of complex electrical and mechanical systems.

RESULTS AND SCREENSHOTS

HTML CSS JS Result

```
section class="section-3 target" id="video-gallery">
  <h1 class="section-heading">Video Gallery</h1>
  <div class="videos-wrapper center">
    <video src="images/car-video.mp4" muted loop class="video">
</video>
  </div>
</section>
Step 2: Styling with CSS –
```

section class="section-3 target" id="video-gallery">

Video Gallery

HTML CSS JS Result

```
.wrapper {
max-width: 1200px;
margin: 0 auto;
padding: 20px;
```

section class="section-3 target" id="video-gallery">

Video Gallery

CONCLUSION

the growing significance of government support and investment in the industry, the central role of technology such as AI and robotics in enhancing efficiency, and the ongoing importance of adapting to changing consumer preferences and stricter environmental regulations to maintain competitiveness and drive future growth.