

Project Status Report II

Date of Report Issue/Prepared: 2024-03-06

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Employer/Organization: ECOTRACK

Project Name:	ECOTRACK	
Project Team:	T32	
Period Reporting:	Start Date: Feb 03, 2024	End Date: Mar 08, 2024
Overall Project Health	Green (Good) - Yellow (Warning) - Red (Bad)	

Summary

Project Status Summary

Significant advancements have been achieved with EcoTrack, marking a strong initiation into our project's lifecycle. Our team has efficiently reached several crucial milestones, laying down an indispensable foundation for both the project's framework and the enhancement of user engagement. These developments signify a substantial commencement and establish a robust groundwork for future project stages.

Completed Milestones:

- **Formulation of Team Charter:** Successfully crafted and finalized, this charter delineates the team's aims, roles, and workflow, fostering a unified and productive team environment.
- **Revision of Project Plan:** Comprehensive reassessment and updating of the plan to mirror our present timelines and resource distribution, providing a clear pathway for future developments.
- **User Login/Registration Module:** This vital user interaction facet has been meticulously coded and is now fully functional, offering a secure and efficient gateway for user management linked with our MongoDB database. With security features implemented as well, our users can feel a sense of safety logging in and registering to Ecotrack with our hashed passwords, jwt tokens and strong password security tips.
- **Quality Assurance for User Login System:** Rigorous testing has confirmed the reliability of the user registration and login processes, with initial MongoDB issues resolved, affirming system integrity.
- **Launch of 'About' Page:** This page, now live, offers detailed insights into our mission and how we're steering users towards a more sustainable lifestyle.
- **Implementation of Green Lifestyle Initiatives:** A newly introduced feature designed to immerse users in eco-friendly tasks, fostering a culture of sustainability.
- **Environmental News Integration:** With a new API, we deliver the most recent environmental news and insights directly to our users, enriching the platform's content value.
- **User Interface Enhancements:** A substantial overhaul has been made to the interface to enhance user experience, prioritizing intuitive navigation

particularly around new functionalities like the Carbon Footprint Calculator and the Local Sustainability Map.

- **Educational Multi-Videos Page:** A new resource containing various educational materials has been developed to inform and guide our stakeholders.

Next Steps:

In the forthcoming period, the focus will shift to:

- **Finalizing the Carbon Footprint Calculator:** Completing the integration of the calculator to facilitate user awareness and encourage sustainable choices.
- **Local Sustainability Map Completion:** Finalizing the map to connect users with local environmental activities and enterprises.
- **Enhanced Green Lifestyle Challenges:** Upgrading and expanding our challenge feature to further engage and educate our user base.
- **Extended Testing and Quality Assurance:** Ongoing rigorous testing of all platform aspects, with a special emphasis on newly introduced features.
- **Feedback Collection Enhancement:** Establishing a robust mechanism for collecting and analyzing user feedback to drive continuous platform improvement.
- **Development and Execution of Marketing Strategy:** Crafting and implementing a marketing plan aimed at expanding our user base and promoting environmental consciousness.

Conclusion:

EcoTrack stands at a pivotal time, with key elements now operational and showing promising effectiveness. Our committed team is determined to keep this momentum, focusing on the careful execution of the upcoming phases to deliver a product of unmatched quality and relevance in fostering sustainable living.

Accomplishments As Planned	Planned but not Accomplished
<u>Login/Registration fixed – issue on MongoDB resolved not issue on our end</u>	<u>Google Maps integration with specific display of Eco Friendly businesses</u>
<u>Educational Videos</u>	Carbon footprint calculator
<u>Environmental News Feed</u>	Overall Testing
	Final Design
	Advanced Green Lifestyle Challenges
	Feedback/Survey Page

Upcoming Objectives for Mar 09, 2024 to Mar 29, 2024

Planned Activities/Tasks for Next Period			
Activity/Task	Assigned To <name/s>	Duration <days>	Date
Google Maps	Munira Bahmani	1 week	March 23, 2024

Carbon footprint Calculator	Elnaz Heidari	1 week	March 23, 2024
Final Front end Development / Design	Prakash Kumar	1 week	March 23, 2024
Continuous Security Practices	Zoe Detlefsen	weekly	
Green Lifestyle Challenges (advanced)	Zoe Detlefsen	1 week	March 23, 2024
Feedback Survey Page	Prakash Kumar	1 week	March 23, 2024
Login/Registration continuous testing and review	Zoe Detlefsen	weekly	

Milestones for Next Period		
Milestone (Objective)	Assigned To	Delivery Date
Google Maps	Munira Bahmani	March 23, 2024
Carbon Footprint Calculator	Elnaz Heidari	March 23, 2024
Final Front end Development / Design	Prakash Kumar	March 23, 2024
Continuous Security Practices	Zoe Detlefsen	Weekly
Green Lifestyle Challenges (advanced)	Zoe Detlefsen	March 23, 2024
Feedback/Survey	Prakash Kumar	March 23, 2024

Managing Issues and Risks

Issues/Problems for EcoTrack Project:

Issue with MongoDB for user registration/login

- Resolution Strategy: Implement more robust error handling and diagnostics to quickly identify and resolve database connectivity issues. Consider implementing a fallback mechanism or redundancy to enhance system reliability.
- Due Date: March 23, 2024

Updates on government of Canada's environmental calculations

- Resolution Strategy: Establish a dedicated team to monitor updates from government sources and integrate a flexible system design that allows quick updates to calculation algorithms without disruption

Performance Bottlenecks

- Resolution Strategy: Conduct comprehensive performance testing to identify bottlenecks. Optimize code and database queries, and scale resources as needed.
- Due Date: March 23, 2024

User Experience (UX) Inconsistencies

- Resolution Strategy: Implement a continuous feedback loop with users to identify UX issues. Use A/B testing for new features to ensure they meet user expectations before full rollout.
- Due Date: March 23, 2024

Integration Failures with External APIs

- Resolution Strategy: Develop a robust error handling and retry mechanism for API failures. Establish SLAs with third-party service providers and monitor API performance closely.
- Due Date: March 23, 2024

Data Integrity and Accuracy Issues

- Resolution Strategy: Implement strict validation rules, both on the client and server sides. Regularly audit data for accuracy and consistency, and develop scripts to correct any anomalies detected.
- Due Date: March 23, 2024

Compliance with New Privacy Laws

- Resolution Strategy: Stay updated with changes in privacy laws and regulations. Review and update data handling and privacy policies accordingly. Conduct regular compliance training for the team.
- Due Date: March 23, 2024

Difficulty in Retaining Skilled Developers

- Resolution Strategy: Develop a strong workplace culture and offer competitive salaries and benefits. Implement a continuous learning and development program to keep the team engaged and up-to-date with the latest technologies.
- Due Date: March 23, 2024

Mobile Responsiveness and Compatibility Issues

- Resolution Strategy: Adopt a mobile-first design philosophy. Regularly test the application on a wide range of devices and browsers to ensure compatibility and responsiveness.
- Due Date: March 23, 2024

Unexpected Downtime of Critical Systems

- Resolution Strategy: Implement high availability and disaster recovery strategies, including redundant systems and regular backup routines.

Monitor system health in real-time to detect and address issues promptly.

- Due Date: March 23, 2024

Security Vulnerabilities

- Resolution Strategy: Conduct regular security audits and penetration testing. Keep all software up to date with the latest security patches and educate the team on best security practices.
- Due Date: Continuous

Project Delays and Overruns

- Resolution Strategy: Adopt agile project management methodologies to improve flexibility and responsiveness. Regularly review project timelines and budgets, adjusting as necessary.
- Due Date: March 23, 2024

EcoTrack Project Risks and Mitigation Strategies

1. MongoDB Issues for User Registration/Login

- Risk Ranking: Medium
- Risk Impact: High
- Mitigation Strategy: Develop contingency plans including alternative databases or cloud services for uninterrupted service.

2. Updates on Government of Canada's Environmental Calculations

- Risk Ranking: Medium
- Risk Impact: High
- Mitigation Strategy: Regularly update calculations and collaborate with environmental experts for dynamic adaptation.

3. Cybersecurity Threats

- Risk Ranking: High
- Risk Impact: High
- Mitigation Strategy: Implement advanced security measures, conduct regular audits, and provide cybersecurity training.

4. Data Privacy Compliance Violations

- Risk Ranking: High
- Risk Impact: High
- Mitigation Strategy: Stay updated with data protection laws, conduct compliance audits, and seek legal consultation.

5. Scalability Issues as User Base Grows

- Risk Ranking: Medium
- Risk Impact: High
- Mitigation Strategy: Design for scalability using cloud services and monitor performance for proactive capacity planning.

6. Dependence on Third-Party Services (APIs)

- Risk Ranking: Medium
- Risk Impact: Medium
- Mitigation Strategy: Implement fallback mechanisms and assess alternative services for reliability.

7. Technical Debt Leading to Reduced Agility

- Risk Ranking: Medium
- Risk Impact: Medium
- Mitigation Strategy: Adopt agile practices, prioritize code refactoring, and allocate time for reducing technical debt.

8. User Engagement Lower Than Expected

- Risk Ranking: Medium
- Risk Impact: Medium
- Mitigation Strategy: Utilize surveys and feedback for UX improvement and user engagement strategies.

9. Difficulty Integrating New Features

- Risk Ranking: Low
- Risk Impact: Medium
- Mitigation Strategy: Maintain a modular architecture and use API-first design for ease of integration.

10. Legal and Regulatory Changes Affecting Environmental Claims

- Risk Ranking: Medium
- Risk Impact: High
- Mitigation Strategy: Monitor and adapt to legal changes to ensure compliance and accuracy in environmental content.

Due Dates:

Sunday, Mar 10, 2024 (11:59 p.m.)