



**Report:**

***Schedule, Ecological Risks & Sustainability / Quality Process***

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***Date: 22 March 2024***

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## Purpose of the report & Presentation of the project

This report aims to document the progress and achievements of our project with **Instamint**, highlighting our methodical approach to developing an innovative platform for the NFT world. The aim is to demonstrate how we have met the specified technical and functional requirements, while highlighting our commitment to innovation, safety and sustainability.

The **Instamint** project is positioned at the forefront of the NFT market, seeking to transform the experience of discovering, collecting and exchanging digital art. With a focus on creating a vibrant community of artists, experts and galleries, our aim is to establish Instamint as a benchmark in the field.

Our team of developers, passionate about cutting-edge technologies and innovative solutions, took on the challenge of this ambitious project on schedule, from 22 March to 3 June, with the promise of exceeding current standards in the NFT market.



## Actual schedule

### 1- Details of project phases:

The ***Instamint*** project is being implemented in strategically planned phases, with the aim of delivering an NFT platform that is not only at the cutting edge of innovation but also respects safety and sustainability criteria.

#### **Phase 1: Conceptualisation and Preparation (22 March - 26 March)**

- **Conceptualisation:** Beginning with a preliminary definition and design phase, including the creation of prototypes and data models.
- **Setting up the development environment:** Quickly carried out to enable an efficient start to development.

#### **Phase 2: Development and Testing (27 March - 22 May)**

- **Feature development:** This period is characterized by the development and expansion of the platform's essential features.
- **Testing and Integration:** Testing is carried out in parallel to ensure reliability and performance, with continuous integration of feedback to refine the user experience.

#### **Phase 3: Fine-tuning and preparation of the deliverable (23 May - 3 June)**

- **Finalization:** Focus on fine-tuning the developments made and preparing a ready-to-use final product.
- **Preparing the Deliverable:** The aim is to prepare a finished, optimised version ready for presentation to the customer, including any final adjustments required.

### **Presentation to the Customer (After 3 June)**

- **Final Presentation:** The full project presentation will take place after 3 June, to demonstrate achievements and discuss next steps based on customer feedback.

### **Final Phase: Integration of Customer Feedback (Until 22 June)**

- **Post-Presentation Improvement:** This final phase is dedicated to integrating feedback from the customer presentation. The aim is to adjust and optimize the platform based on this feedback to ensure that the final product fully meets the customer's expectations.
- **Final Refinement:** We will have until 22 June to make these changes, ensuring that the *Instamint* platform is not only functional and aesthetically pleasing but also perfectly aligned with the client's specific needs.

This phased structure underlines our commitment to delivering a solution that excels both technically and in terms of usability, while remaining flexible and responsive to customer feedback right through to project completion.

## 2- Comparison between planned and actual schedule:

We're satisfied with what we were able to produce in the time available.

It doesn't have all the features, but we've kept up a regular pace, resulting in a site that's ready for PROD and a first version for users.

The main features have been completed and are working very well.

## **Ecological Risk Assessment & Sustainability**

### **1- Description of the ecological risks identified:**

The various environmental risks we have identified are as follows:

**Energy consumption:** The operation of the servers and infrastructure required for the Instamint platform can lead to significant energy consumption.

**Carbon footprint:** The production of CO2 linked to the intensive use of IT resources represents an environmental risk.

### **2- Measures taken to ensure the sustainability of technical solutions:**

To mitigate these various risks, we have established a number of sustainability measures:

**Resource optimisation:** Implementation of an advanced caching system to reduce unnecessary database requests, thereby minimizing resource use and the carbon footprint. This is put into practice with the use of Redis in the backend and SWR on our NextJS frontend.

**Autoscalable Cloud Solutions:** Selection of AWS cloud solutions that automatically adjust according to actual needs, avoiding over-consumption of energy and contributing to a more eco-responsible approach to development.

**Eco-efficient Code:** Commitment to writing optimized, high-performance code to reduce server energy consumption. This is put into practice through the code review process by the various team members.

**Environmental Impact Monitoring:** Implementation of monitoring tools, such as Grafana on our infrastructure, to monitor resource consumption and identify opportunities to improve energy efficiency.

**Sustainable Innovations:** Openness to exploring and integrating technological innovations that encourage eco-responsible behavior among users, while remaining at the forefront of advances for a greener platform.

These measures reflect the team's commitment to adopting and promoting sustainable development practices, taking into account the environmental impacts of their technical solution right from the design stage and striving to minimize these impacts.

## Quality Processes

### 1- Development and project management methodologies used:

Our team chose to adopt an **Agile methodology** for the development of the *Instamint* project, which allowed great flexibility and adaptability in the face of changing requirements and challenges encountered during the course of the project.

The use of **JIRA** to structure our agility facilitated efficient task management, enabling clear planning, allocation of responsibilities and fluid communication within the team.

Regular sprint reviews played a crucial role in enabling us to continually integrate customer feedback, adjusting our development strategy to better meet user needs.

This iterative approach has not only fostered continuous improvement of the platform, but has also strengthened cohesion and collaboration within our team.

### 2- Approaches to ensuring quality and safety:

To maintain a high level of quality in the development of the *Instamint* platform, we have put in place a number of rigorous practices.

Every contribution to the code was subject to **code reviews** by other team members, ensuring the quality, consistency and security of the code before it went into production. This practice enabled any security or performance issues to be identified and resolved proactively.

Adopting **GitHub Actions** for our **Continuous Integration** and **Continuous Deployment** (CI/CD) needs has **automated the testing and deployment processes**, enabling frequent and secure updates to the platform.

In addition, we used **Playwright** and **Jest** for a comprehensive suite of *tests*, covering both user interactions via **end-to-end** tests and backend functionality through unit and feature tests. These tools helped us to ensure in-depth **test coverage, guaranteeing the reliability and robustness** of the platform.



## Conclusion

### 1- Summary of Key Points:

Our proposal for **Instamint** is based on a solid foundation of Agile development methodologies and rigorous approaches to quality and security.

We have designed an innovative technical architecture that not only meets **Instamint's** functional and technical requirements but also aspires to transform the NFT market.

The integration of thorough testing practices and the prioritization of security and performance guarantee a reliable and efficient platform.

In addition, our commitment to sustainability and eco-responsibility underlines our determination to minimize the environmental impact of our work.

### 2- Commitment to Continuous Improvement:

Constantly evolving technologies and user expectations require a dynamic approach that is receptive to change.

We are committed to a philosophy of continuous improvement, incorporating user feedback and technological innovations as they emerge.

Our team is dedicated to the long-term success of **Instamint**, ready to deploy all its skills and expertise to evolve the platform.

We see this project not just as the creation of a current solution but as an opportunity for continued growth and adaptation, anticipating and proactively responding to the future needs of the NFT market.

**In conclusion**, our team is excited to be collaborating on the ***Instamint*** project, confident that our methodical approach and commitment to innovation and excellence will enable us to deliver a platform that exceeds expectations.

We are ready to work hand in hand with ***Instamint*** to make this vision a reality, contributing to the advancement of digital art and blockchain technology.