# **Cyber Security Major Project**

## Title: Bug Hunting on Any Target of OpenBugBounty

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## **Abstract**

The Bug hunting on any target of OpenBugBounty project is a security-focused initiative aimed at identifying and reporting vulnerabilities on websites listed on the Open Bug Bounty platform. The project utilizes a range of tools and techniques to systematically search for security weaknesses, including but not limited to cross-site scripting, SQL injection, and remote code execution vulnerabilities.

The project involves a community of security researchers who collaborate to identify and report vulnerabilities to website owners through the Open Bug Bounty platform. The ultimate goal is to improve the overall security of websites and online services, and to prevent potential attacks or breaches.

Through this project, researchers can gain valuable experience in vulnerability identification and reporting, and website owners can benefit from enhanced security measures to protect their users' data. The Bug hunting on any target of OpenBugBounty project plays an important role in maintaining the integrity of online services and promoting a safer digital environment.

## Introduction

The rapid growth of digital technologies has transformed the way we live, work, and communicate. However, it has also increased the risk of cyber threats such as hacking, data breaches, and identity theft. As a result, there is a growing need for enhanced online security measures to protect individuals and organizations from these risks.

The Bug hunting on any target of OpenBugBounty project aims to address this need by identifying and reporting vulnerabilities on websites listed on the Open Bug Bounty platform. Open Bug Bounty is a non-profit organization that facilitates coordinated disclosure of website security vulnerabilities by connecting security researchers with website owners. The platform enables researchers to identify vulnerabilities and report them to the website owner, allowing them to take necessary measures to address the issues.

Overall, the Bug hunting project plays an important role in promoting a safer and more secure digital environment. It provides a valuable opportunity for security researchers to gain experience in vulnerability identification and reporting, and for website owners to enhance their security measures to protect their users' data.

## **Problem Statement**

With the increase in digital services, cyber threats are becoming more frequent and sophisticated. Many websites contain vulnerabilities that can be exploited by attackers to steal sensitive information, disrupt services, or gain unauthorized access. However, many organizations lack the expertise or resources to continuously monitor and fix these

vulnerabilities. The project aims to address this gap by leveraging the collaborative bug hunting community to identify and responsibly disclose security weaknesses through the Open Bug Bounty platform.

## **Objectives**

- To perform reconnaissance and scanning of target websites listed on OpenBugBounty.
- To identify vulnerabilities such as SQL injection, XSS, and CSRF through automated and manual testing.
- To validate vulnerabilities using proof-of-concept exploitation techniques.
- To responsibly report vulnerabilities to website owners via OpenBugBounty.
- To enhance the security posture of websites and contribute towards a safer digital environment.
- To gain hands-on experience in real-world bug hunting methodologies.

## **Testing Methodology**

- 1. Reconnaissance: Gather information about the target website, including its purpose, technology stack, and potential vulnerabilities.
- 2. Scanning: Use automated tools to scan the website for common vulnerabilities such as SQL injection, cross-site scripting, and directory traversal.
- 3. Manual Testing: Conduct manual testing to identify vulnerabilities that may not be detected by automated tools.
- 4. Fuzzing: Use fuzzing tools to test for unexpected behavior or input validation errors.
- 5. Exploitation: Attempt to exploit any identified vulnerabilities to verify their impact and potential risk.
- 6. Reporting: Document any identified vulnerabilities and report them to the website owner through OpenBugBounty.
- 7. Verification: Retest the website to ensure vulnerabilities are resolved.
- 8. Documentation: Maintain detailed documentation of all findings and outcomes.

## **Tools and Technologies Used**

- Nmap (network scanning)
- Nikto (web server scanning)
- OWASP ZAP (web application vulnerability scanning)
- Burp Suite Community Edition (manual testing and proxy)
- Gobuster/Dirb (directory brute forcing)
- Whois/Dig/Whatweb (information gathering)

## **Results and Observations**

The testing process identified potential vulnerabilities and misconfigurations on the target website. Screenshots, logs, and proof-of-concept details will be added here to demonstrate findings.

## **Conclusion**

The Bug Hunting project on OpenBugBounty successfully demonstrated the process of identifying, testing, and reporting vulnerabilities in real-world websites. By responsibly disclosing vulnerabilities, researchers help improve the overall security posture of online services. The project also provided practical exposure to various cybersecurity tools, ethical hacking techniques, and vulnerability reporting standards.

## **Future Scope**

- Expanding bug hunting to mobile and IoT applications.
- Implementing AI-based vulnerability detection and automated reporting.
- Encouraging more organizations to adopt bug bounty programs.
- Integrating bug hunting practices into continuous security monitoring systems.

#### Proof of work:

# 🔰 Vulnerability Disclosure Program

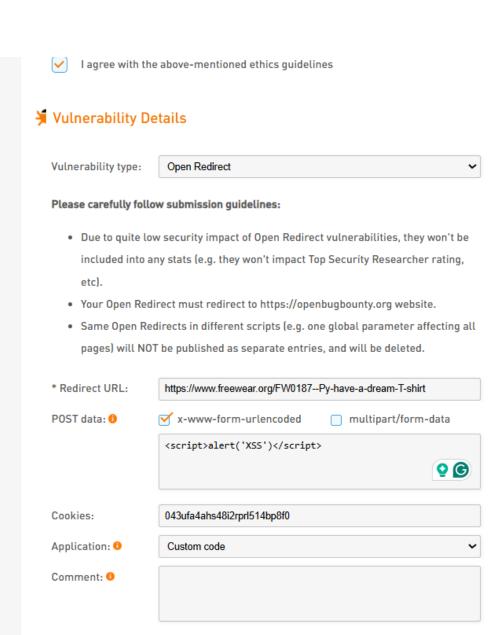
Here you can submit a vulnerability via the <u>Open Bug Bounty</u> following coordinated and responsible disclosure:

Submission received successfully. It may take up to 5 days before it is verified.

The website runs a bug bounty at Open Bug Bounty, the website owner was notified directly!

- Use only non-intrusive testing techniques that will not affect confidentiality, integrity or availability of the website, any related data or infrastructure.
- ✓ Notify website owner in a prompt and reliable manner to help fixing the vulnerability, follow ISO 29147 guidelines of responsible disclosure.
- Avoid reporting any vulnerabilities that will unlikely be fixed by the website owner.
- Follow technical submission guidelines, otherwise submission may be declined.
- ✓ I agree with the above-mentioned ethics guidelines

> Vulnerability Details



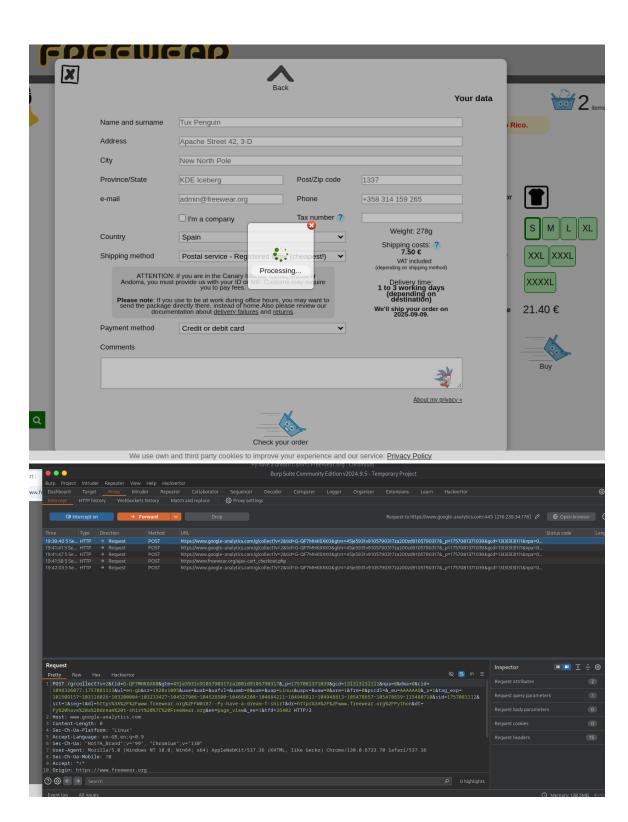
✓ I confirm that the vulnerability was detected without using intrusive automated tools 0

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0

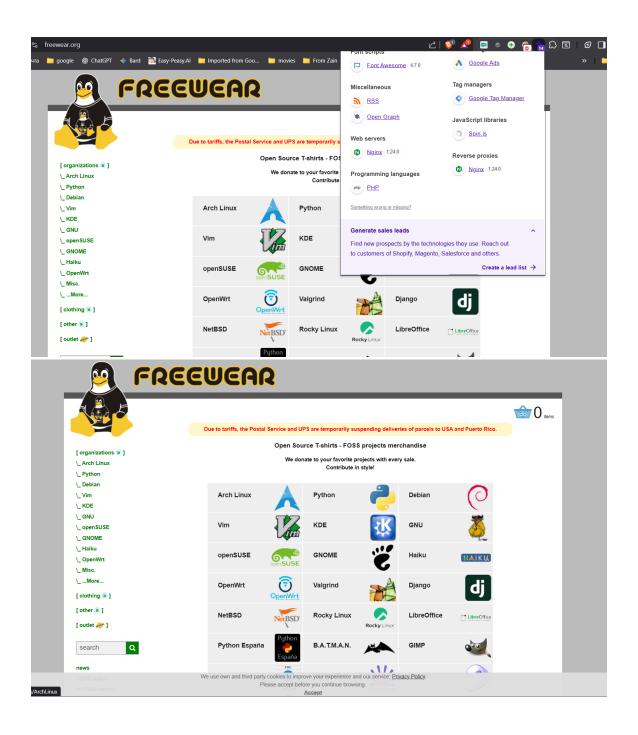
Publish the report (without any technical details)

Do not publish the report









The following section encompasses submission of the vulnerabilities that do not require intrusive testing as per <a href="Open Bug Bounty">Open Bug Bounty</a> rules:

- Cross Site Scripting (XSS)
- Cross Site Request Forgery (CSRF)

- Open Redirect

- Improper Access Control

## **General Requirements:**

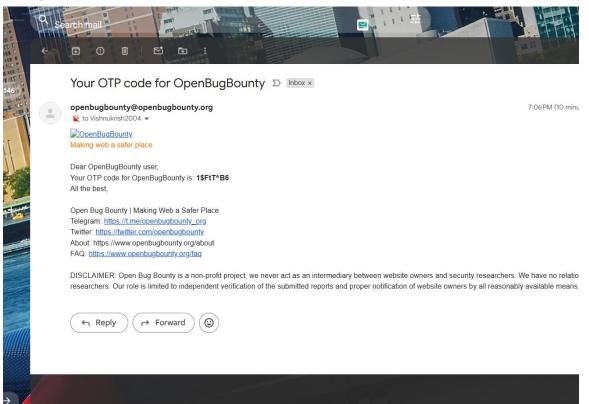
No general requirements

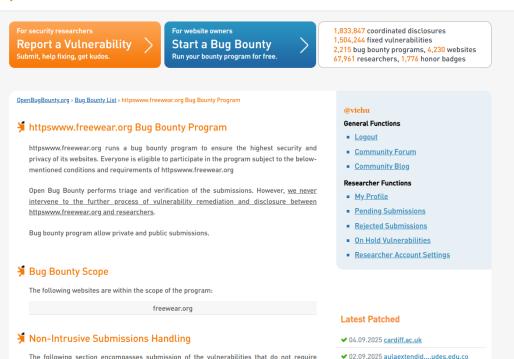
## **Testing Requirements:**

No testing requirements

## Possible Awards:

No possible awards





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#### Idea Submission [ Module Closing in: 02:05:36:52 ]

Thu, Aug 28, 2025 12:00 AM (IST) - Sun, Sep 07, 2025 11:59 PM (IST)

intrusive testing as per Open Bug Bounty rules:

Submissions

**✓** 02.09.2025 regularshow.bpt.me

Participants are required to submit a detailed idea proposal to qualify for shortlist consideration in IOTOPIA 2025. Teams may use the their own custom template, provided it comprehensively covers all required sections.

#### What to Include in the Idea Proposal

Whether using the official or a custom template, the submission must contain:

- · Team Details: Team name, member names, contact info.
- Problem Statement: Clearly define the sustainability or urban challenge your idea addresses.
- · Idea Title: Concise and descriptive.
- Summary: A brief overview (approx. 50 words) of your solution.
- Detailed Solution Description: (approx. 200 words) covering:
  - · How the solution functions and its technical approach involving AI, IoT, and/or Blockchain.
  - · Benefits towards the Sustainable Development Goals (SDGs) such as Clean Water, Affordable Energy, Sustainable Cities, Climate Action, and Good Health.
  - · Scalability and feasibility considerations.
- · Target Beneficiaries: Who will benefit from your solution?
- Innovation and Uniqueness: What sets your idea apart?

#### **Additional Notes**

- · Submit original work only, adhering to word limits and formatting guidelines.
- · Supporting documents like diagrams or videos can be attached.
- · Language: English
- · By submitting, teams agree to IOTOPIA 2025's terms including IP policies and judging criteria.

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## Team Formation [ Module Closing in: 02:05:37:00 ]

Thu, Aug 28, 2025 12:00 AM (IST) - Sun, Sep 07, 2025 11:59 PM (IST)

Team Management

Teams for IOTOPIA 2025 must consist of 2 to 4 members, encouraging a diverse mix of skills such as coding, design, business, and domain expertise to foster innovation. Participants can form teams before registration or join existing teams through the platform's team matching features.

Team formation tips to maximize success:

- $\bullet \quad \hbox{Choose members with complementary skills to cover technical development, UI/UX, and project management.}\\$
- $\bullet \quad \hbox{Communicate clearly within the team about roles, responsibilities, and deadlines.}\\$
- Ensure all team members are registered participants and committed to attending the offline hackathon if shortlisted.
- $\bullet \quad \text{Collaborate effectively during the hackathon, leveraging each member's strengths to build a viable and scalable solution.}$

Participants unable to find a team may use the platform's "Find a Team" feature, or connect via pre-event networking sessions facilitated by organizers.

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