**PROJECT NAME: NEMO**

**GROUP MEMBERS: DİLAY GÜLERSÖNMEZ, HAMİ DENİZ KAYNAK, AYŞE SERRA ER, KAAN MURAT TAŞDEMİR, EMRE AYBERK KOÇASLAN, YALÇIN ÇELİKEL**

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| LIKELIHOOD RANK | RISK  DESCRIPTION |
| 3 | **Financial Risks**: Establishing and operating a fish farm requires significant upfront investment and ongoing operational costs. Fluctuations in feed prices, energy costs, and interest rates can impact the financial viability of our project. Maintaining a robust financial management strategy, securing adequate insurance coverage, and conducting regular financial assessments are essential to mitigate financial risks and ensure long-term sustainability. |
| 8 | **Technology Risk:** Dependence on technology such as automated feeding systems, water quality monitors, or data management software may expose the project to risks such as system failures, cyber threats, or data breaches. |
| 15 | **Weather Events and Natural Disasters**: Fish farms are vulnerable to weather events such as storms, floods, and extreme temperatures, which can damage infrastructure, disrupt operations, and affect fish health. Developing emergency response plans, reinforcing farm structures, and investing in resilient technology can help mitigate the impact of adverse weather conditions and natural disasters. |
| 6 | **Market Volatility**: The market for fish products can be subject to fluctuations in demand, prices, and consumer preferences. External factors such as economic downturns, regulatory changes, and competition from other suppliers can impact the profitability of our fish farm. Diversification of our product offerings, establishing long-term contracts with buyers, and staying informed about market trends are essential to navigate market volatility effectively. |
| 12 | **Legal Risk:** Litigation, disputes, or legal actions related to contract breaches, liability claims, or regulatory compliance issues could result in financial penalties or damage to the project's reputation. |
| 11 | **Regulatory Compliance**: Compliance with regulatory requirements and permits is essential for the legal operation of our fish farm. Failure to comply with environmental, health, and safety regulations can result in fines, legal disputes, and reputational damage. Regular audits, ongoing training for staff, and staying abreast of regulatory updates are critical to ensure compliance and minimize legal risks. |
| 13 | **Social Risk:** Community opposition, protests, or conflicts with local stakeholders over land use, water rights, or environmental impacts could hinder project development or regulatory approvals. |
| 14 | **Climate Change Risk:** Long-term changes in climate patterns, temperatures, or precipitation levels could alter water availability, habitat suitability, or disease dynamics, impacting fish farming operations. |
| 1 | **Unclear Requirements:** Poorly defined or constantly changing requirements can lead to misunderstandings, delays, and rework. |
| 2 | **Communication Issues:** Poor communication among team members, stakeholders, and clients can lead to misunderstandings, delays, and inefficiencies. |
| 7 | **Security Vulnerabilities:** Failure to address security risks can result in data breaches, unauthorized access, and other security incidents, damaging the reputation of the software and its developers. |
| 10 | **Performance Issues Risk:** The risk of software failing to meet expected performance levels. This includes response times, availability, and scalability issues. |
| 4 | **Debugging Complexity Risk:** The risk of encountering challenges in identifying and resolving software defects. This may include difficulties in replicating bugs, lack of debugging tools, or complex system interactions complicating the debugging process. |
| 9 | **Data Backup and Recovery Risk:** The risk of data loss or corruption due to insufficient backup and recovery mechanisms. This involves establishing robust backup strategies, implementing data redundancy, and testing recovery procedures to ensure data integrity and availability. |
| 5 | **Testing Deficiency Risk:** The risk of insufficient testing procedures, leading to undetected defects or errors in the software. This may result from inadequate test coverage, lack of testing environments, or ineffective testing methodologies. |

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| IMPACT  RANK | RISK  DESCRIPTION |
| 1 | **Weather Events and Natural Disasters:** Fish farms are vulnerable to weather events such as storms, floods, and extreme temperatures, which can damage infrastructure, disrupt operations, and affect fish health. Developing emergency response plans, reinforcing farm structures, and investing in resilient technology can help mitigate the impact of adverse weather conditions and natural disasters. |
| 2 | **Technology Risk:** Dependence on technology such as automated feeding systems, water quality monitors, or data management software may expose the project to risks such as system failures, cyber threats, or data breaches. |
| 3 | **Data Backup and Recovery Risk:** The risk of data loss or corruption due to insufficient backup and recovery mechanisms. This involves establishing robust backup strategies, implementing data redundancy, and testing recovery procedures to ensure data integrity and availability. |
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| 7 | **Market Volatility**: The market for fish products can be subject to fluctuations in demand, prices, and consumer preferences. External factors such as economic downturns, regulatory changes, and competition from other suppliers can impact the profitability of our fish farm. Diversification of our product offerings, establishing long-term contracts with buyers, and staying informed about market trends are essential to navigate market volatility effectively |
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| 12 | **Legal Risk:** Litigation, disputes, or legal actions related to contract breaches, liability claims, or regulatory compliance issues could result in financial penalties or damage to the project's reputation. |
| 13 | **Social Risk:** Community opposition, protests, or conflicts with local stakeholders over land use, water rights, or environmental impacts could hinder project development or regulatory approvals. |
| 14 | **Financial Risks:** Establishing and operating a fish farm requires significant upfront investment and ongoing operational costs. Fluctuations in feed prices, energy costs, and interest rates can impact the financial viability of our project. Maintaining a robust financial management strategy, securing adequate insurance coverage, and conducting regular financial assessments are essential to mitigate financial risks and ensure long-term sustainability. |
| 15 | **Climate Change Risk**: Long-term changes in climate patterns, temperatures, or precipitation levels could alter water availability, habitat suitability, or disease dynamics, impacting fish farming operations. |

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| LIKELIHOOD RANK | IMPACT RANK | COMBINED RANK | RISK  DESCRIPTION |
| 3 | **14** | **17** | **Financial Risks** |
| 8 | **2** | **10** | **Technology Risk** |
| 15 | **1** | **16** | **Weather Events and Natural Disasters** |
| 6 | **7** | **13** | **Market Volatility** |
| 12 | **12** | **24** | **Legal Risk** |
| 11 | **11** | **22** | **Regulatory Compliance** |
| 13 | **13** | **26** | **Social Risk** |
| 14 | **15** | **29** | **Climate Change Risk** |
| 1 | **8** | **9** | **Unclear Requirements:** |
| 2 | **10** | **12** | **Communication Issues** |
| 7 | **4** | **11** | **Security Vulnerabilities** |
| 10 | **9** | **19** | **Performance Issues Risk** |
| 4 | **5** | **9** | **Debugging Complexity Risk** |
| 9 | **3** | **12** | **Data Backup and Recovery Risk** |
| 5 | **6** | **11** | **Testing Deficiency Risk** |