**IDENTIFYING RISK FACTORS AND PROVIDING PREVENTATIVE CARE RECOMMENDATIONS**

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***Abstract***

***This abstract covers an in-depth plan for implementing as proactive care recommendations in utilization in response to address obstacles like limited access and lack of awareness. It emphasizes how essential it is to utilize digital platforms and educational campaigns to broaden its public awareness. It also emphasized the significance it is for healthcare providers to establish interactions with patients and provide specific recommendations. It likewise highlights how vital it is that we promote fair access to preventative health services while utilizing technology to detect abnormalities early and take preventative measures. Having everything thought of, communities could enhance health outcomes and minimize the burden of preventable diseases by integrating these techniques.***

***Keywords:***

***Thread aspects, Upkeep advice,Medications,Analysing***

# INTRODUCTION

1. Establish precise instructions based on recommendations for healthcare organizations and research.

2. Train healthcare providers to abide with the recommendations and integrate them into existing clinical workflows.

3. For smoother implementation, make utilize technology via apps and telemedicine.

4. Empower clients with knowledge and assets that promote engaged participation.

5. Take delight in initiatives in the community to spread awareness about preventive healthcare.

6. Track the results of campaigns by monitoring and evaluating them.

7. Urge for alterations to regulations that support activities in preventative healthcare.

# RELATED WORKS

Adrienne Watt; David Wiley, et al.; Project Management Open Resources; and TAP-a-PM[1]The project is named as RISK MANAGEMENT PLANNING.

# 2.[Megan Cherewick](https://pubmed.ncbi.nlm.nih.gov/?term=Cherewick%20M%5BAuthor%5D),[Ronald E. Dahl](https://pubmed.ncbi.nlm.nih.gov/?term=Dahl%20RE%5BAuthor%5D),SamanthaBertomen, Emily HIpp,Priyanka Shreeder,Prosper F Njau, and Jenn A.Leifermann[2]RISK AND PROTECTIVES FACTORS FOR MENTAL HEALTH AND WELLBEING AMONG ADELSCENT ORPHANS

3. Cherewick, Megan; Dahl, Ronald E; Bertomen, Samantha; Hipp, Emily; Shreedar, Priyanka; Njau, Prosper F[3]. RISK AND PROTECTIVE FACTORS ASSOCIATED WITH MENTAL HEALTH.

# TECHNIQUES USED

## FEATURE SELECTION

The first step in using RF for work-related DDoS prevention is to select the most relevant features from the CICIDS2017 dataset. This can be done using a variety of feature selection techiniques, such as:

**Information gain:** This metric measure how much information a feature provides about the target variable (i.e., whether the traffic ). Features with high information gain are more likely to be useful for predicting DDoS attacks.

**Chi-squired test:**This test is used to identify features that are statically correlated with the target variable.

**Principal component analysis(PCA):**This technique is used to reduce the dimensionally of the data by identifying a set of new features (principal components) that explain most of the variance in the original data.

## KAGGLE

Leading data science platform Kaggle offers a wide range of features intended to satisfy the needs of both novices and researchers in the area. Users may improve their skills while tackling real-world challenges and compete for prizes through its machine learning competitions. Research and analysis are rendered easier by the platform's vast collection of datasets from a variety of areas, and users may collaborate on data-driven projects by building and distributing interactive notebooks in its collaborative workspace.

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## MACHINE LEARNING

## Machine learning is a wide field of artificial intelligence that finds applications across industry sectors. It involves building algorithms that let computers learn from information and come to conclusions or predictions without the need for explicit programming. Image proof of identity, natural language processing, fraud detection, recommendation systems, predictive analytics, autonomous vehicles, financial services, supply chain optimization, and energy management are among the many of the sectors that use machine learning. Its many uses support improved decision-making, process growth, and innovation in a variety of industries.

## MYSQL DATABASE

# Databases serve as vital tools for effectively managing and arranging enormous quantities of data in an array of sectors and industries. They are used in a variety of industries, such as e-commerce, healthcare, research, government, and education, as well as transactional data management, customer relationship management, enterprise resource planning, content management, and data warehousing. Databases promote decision-making, operational efficiency, and innovation in modern society by making tasks like obtaining data, sharing, storage, and analysis An open-source relational database management system (RDBMS) that is popular for managing structured data is called MySQL. It is renowned for its performance, scalability, and ease of use. Strong community support, security, and high availability are among the key attributes. Web applications, systems for managing content, e-commerce platforms, and data analytics frequently use MySQL. Because of its dependability and adaptability when handling diverse database duties across various sectors, it continues to be a preferred optionsimpler.

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# PROPOSED METHODOLOGY

To find established risk factors linked to the ailment or disease in issue, start by doing an extensive literature investigation.

To obtain pertinent information, examine reliable medical publications, databases, and clinical guidelines.

Assess the patient data that is presently readily available, including demographics, family history, medical history, lifestyle choices, and any current medical issues.

Utilize statistical analysis and data mining tools to identify trends and connections between health outcomes and risk factors.

Tools for Risk Assessment:

To figure out each person's risk level, use standardized risk assessment instruments or disease-specific calculators.

Examples are the Gail Model for predicting the risk of breast cancer or the Framingham Risk Score for cardiovascular disease.

Clinical Review:

Perform extensive clinical assessments, spanning physical examinations and diagnostic procedures, to evaluate the patient's present state of health and identify any initial warning signs or symptoms.

Conduct monitors for illness that are frequently associated with the risk factors that have been identified.

Patient Guidelines:

Explain to patients about the value of preventative care in addition to their unique risk factors.

Give information that is clear and easy to understand regarding how lifestyle decisions affect health outcomes.

To improve patient expertise, make use of interactive tools, educational materials, and visual aids.

Specific Suggestions:

Create personalized suggestions for preventative care based on the patient's particular characteristics and the risk factors that have been identified.

Stress treatment options such medication adherence, routine screenings, and changes in lifestyle (e.g., diet, exercise, quitting smoking).

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Network Packet

Sniffer

Intrusion

Detection

system

Collect

Network

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Normal and

Attack

Label Network

•

Traffic

Database

Split Data Into

Training And

Test

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Train RF

models

Evaluate RF

Models on

Testing Sets

Deploy RF

Model to

Production

Fig.1. Training Model

The stepwise explanation of the proposed methodology is defined in the below steps:

* Interventions Behavioral:
* Utilize methods of therapy and behavioral therapies to assist patients in changing for the better in order to reduce their risk.
* Work together to provide complete care with members of the interdisciplinary healthcare team, such as exercise physiologists, dietitians, and psychologists.
* Monitoring and Follow-Up:
* Set up a follow-up appointment schedule so that we can track your progress and evaluate your risk factors again further on.
* To record interventions, check for adherence, and make necessary adjustments to recommendations, use electronic health records or other tracking tools.
* Ongoing Improvement of Quality:
* Take part in continuous enhancement of quality procedures to assess the efficacy of preventive care tactics.
* Get input from patients as well as healthcare providers to determine areas that need improvement and adjust the approach suitably.

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* Select the most relevant features. This can be done using a variety of feature selection techniques, such as information gain, chi-squared test, and PCA.
* Tune the hyperparameters of the RF model. This can be done using a variety of hyperpar
* ameter tuning techniques, such as grid search and random search.
* Train the RF model on the training set.
* Evaluate the RF model on the testing set. This will help to ensure that the model is able to generalize well to new data.
* Deploy the RF model to production. This can be done by
* integrating the model into a network security solution, such as a firewall or intrusion detection system.

# IMPLEMENTATION RESULTS

* Taking the risk identification process into effect can have a number of advantages.
* Comprehensive Risk Coverage: Organizations can identify a wide range of possible risks and ensure comprehensive coverage by systematically applying various approaches and engaging stakeholders.
* Early Risk Detection: Organizations can identify new risks early on and take prompt action to prevent them by using continuous monitoring and frequent updates to the risk register.
* Better Decision-Making: The methodology's organized approach enables more informed decision-making by determining, assessing, and addressing risks in accordance with solid knowledge and professional advice.
* Enhanced Resilience: By proactively managing risks, a company can become more resilient in the face of ambiguity by lowering the possibility of adverse impacts on projects, operations, or healthcare results.
* Implementation of the risk factor identification and   
  preventive care recommendations has elded promising result in promoting health and preventive disease
* By integrating these statergies into health care systems, communities has seen notable improvements in overall well being
* One key outcome is the early dedition of health risk , allowing for timely interventions and preventive measures. This has lead to a reduction in the incident and severity
* Moreover, the implementation of preventive care and recommendation has resulted in healthier life style among individuals
* Through education, counciling and support services people have been empowered to make imform decision and adopt heathier behaviors, leading to improved physical and mental health outcomes
* Futhuremore, the emphasis on holistic health promotion has faster a more comprehensive apporch to care , addressing not only physical health, emotional , social well being.
* This integrated approach has contributed to a more resilient and thriving community. Overall implementation of risk factor of identification and care recommendation has demonstrated significant benefits , including reduced health care cost



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| ghjfh | **Precision** | **Recall** | **F1-score** | **Support** |
| Benign | 1.00 | 1.00 | 1.00 | 88170 |
| Dos Goldeneye | 0.99 | 0.99 | 0.99 | 2017 |
| Dos Hulk | 1.00 | 1.00 | 1.00 | 46147 |
| Dos Slowhttptest | 1.00 | 0.99 | 0.99 | 1090 |
| Dos Slowloris | 0.99 | 1.00 | 0.99 | 1114 |
| Heartbleed | 1.00 | 1.00 | 1.00 | 3 |
| Macro Avg | 1.00 | 1.00 | 1.00 | 138541 |
| Weighted Avg | 1.00 | 1.00 | 1.00 | 138541 |
| Accuracy |  |  | 1.00 | 138541 |

# CONTACT ANALYIS

## 5. DATASET SIZE

The Wednesday dataset is larger than the Friday dataset. The Wednesday dataset contains 81,224,973 packets, while the Friday dataset contains 78,327,369 packets.

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# 6. CONCLUSIONS

# In summary, identifying risk factors and offering preventative care recommendations are vital for promoting health and well-being. Through proactive measures such as lifestyle adjustments, screenings, and vaccinations, individuals can reduce their risk of developing certain health conditions. A holistic approach that considers physical, mental, emotional, and social factors is essential. By investing in prevention today, we can pave the way for healthier communities and improved quality of life in the future.

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