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Assessment 1

Project Proposal Report

Module Name: Changemakers, Creativity and Value creation

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Introduction

This project focuses on developing a smart system to support drug addiction prevention and recovery using modern technology. Drug addiction is a serious problem that affects many people around the world and has negative impacts on physical health mental wellbeing and daily life. Many existing systems mainly focus on helping users during the recovery stage but they do not provide enough support for early detection or prevention.

The aim of this project is to create a system that can monitor user behavior and identify early signs of addiction using artificial intelligence. The system will be developed as a mobile and web-based application so that it can be easily accessed by users. It will collect data such as habits mood and daily activities and use this information to provide personalized support and recommendations.

This project will also explore how technology can be used to improve healthcare services and support individuals more effectively.

Task 1: Ideation & Mind Map

Link mind map

<https://mm.tt/map/3968583782?t=oLA8BfQdgl>



Ideation and Innovation

Innovation is an important concept that helps improve society and solve real life problems. It involves creating new ideas products or systems that provide better solutions. Creativity is closely related to innovation because it allows individuals to think differently and develop new approaches. In modern society technology plays a key role in innovation especially in the healthcare sector. Technologies such as artificial intelligence are now being used to improve healthcare services by supporting decision making and analyzing large amounts of data [1]. The process of ideation involves generating and developing new ideas to solve a specific problem. In this project the main problem identified is drug addiction. Drug addiction is a serious issue that affects individuals physically mentally and socially. Many people struggle with addiction and it can be difficult to manage without proper support [2]. There are existing digital applications that aim to support recovery such as mobile health apps. These applications provide features like tracking behavior reminders and community support. However, most of these systems focus mainly on recovery and do not provide early detection or prevention [3].

The idea for this project is to develop a smart drug addiction prevention and recovery system. This system will use artificial intelligence and behavior tracking to monitor users and detect early warning signs of addiction. The aim is to provide support at an early stage before the condition becomes serious and also help users during recovery. The system will be developed as a mobile and web based application.

Looking at the history of this technology mobile health applications have grown rapidly over the past few years. These applications are widely used in healthcare to monitor patients and support treatment. Artificial intelligence has also become more common in healthcare and is used to analyses data and improve decision making [4]. Different industries such as hospitals mental health services and rehabilitation centers use these technologies to improve their services. The impact of this technology on the healthcare industry is significant. It can improve efficiency accuracy and access to services. It also allows personalized support for users based on their behavior. However, there are also some negative impacts such as privacy concerns data security risks and high development costs. Another challenge is ensuring that users remain engaged with the system.

This project can benefit different stakeholders. Patients can receive better support and early intervention. Healthcare providers can monitor users more effectively and provide better treatment. Organizations can improve their services and reduce costs in the long term.

Task 2: Aim & Objectives and Research area

Smart Drug Addiction Prevention and Recovery System

This project focuses on the use of artificial intelligence in the healthcare industry to support drug addiction prevention and recovery. Drug addiction is a major issue that affects many people and creates challenges for healthcare systems. Artificial intelligence has become an important technology in healthcare because it can analyse large amounts of data and support decision making [5]. In this project artificial intelligence will be combined with mobile and web applications to create a system that can monitor user behavior and detect risks.

This technology can be used in different areas such as patient monitoring mental health support and rehabilitation services. Healthcare organizations can use this system in departments that focus on patient care and behavior analysis. It can help professionals understand user behavior better and provide more effective support.

There are many benefits of using this technology. It improves accuracy and allows faster decision making. It also provides personalized support based on user behavior. Continuous monitoring is another important advantage because it helps identify patterns and detect early warning signs. However there are also some disadvantages such as privacy concerns data security risks and dependence on user input. Users must actively use the system for it to be effective. Even with these challenges artificial intelligence is expected to continue improving healthcare services in the future [6].

Proposed Solution

The proposed solution is a smart drug addiction prevention and recovery system. The system will monitor user behavior such as habits mood and daily activities. It will then analyse this data using artificial intelligence to detect possible addiction risks. The system will provide alerts and recommendations to help users manage their behavior.

The motivation for this project comes from the limitations of existing systems. Many current applications focus only on recovery and do not provide early detection. This system aims to solve that problem by offering both prevention and recovery support.

The research philosophy used in this project is positivism. This approach focuses on collecting real data and analyzing it objectively. It is suitable for this project because it involves identifying patterns in user behavior using data [7]. The aim of this research is to develop a system that can improve addiction support and reduce relapse.

Research Tools Technologies and Resources

To support this project different research tools and databases have been used. Academic sources were collected from Google Scholar. Keywords such as artificial intelligence in healthcare addiction recovery apps and tracking were used to find relevant information.

The sources were selected based on reliability and relevance. Peer reviewed journal articles were chosen to ensure that the information is accurate and trustworthy. These sources help support the development of the project and provide a strong research base.

The technologies used in this project include artificial intelligence data analysis cloud storage and mobile application development. Artificial intelligence will be used to analyse user data while cloud storage will be used to store information securely.

Task Schedule and Risk Assessment

The project will be completed in stages including planning design development testing and evaluation. A work breakdown structure can be used to organize tasks while a Gantt chart can be used to manage time.

There are several risks involved in this project. Privacy is a major concern because sensitive data is collected. System accuracy is another risk because incorrect predictions may affect users. User engagement is also important because the system depends on user input. These risks can be reduced by using secure systems improving algorithms and encouraging users to stay active.

Task 3: Research Strategies

Development Method

In this project different software development life cycle methods can be used such as waterfall agile and spiral. The waterfall model follows a fixed step by step approach where each stage must be completed before moving to the next stage. This method is simple and easy to understand but it is not flexible when changes are needed. The spiral model focuses on risk management and allows repeated cycles of development and testing but it can be complex and difficult to manage.

For this project the agile development method is more suitable. Agile allows the system to be developed in small stages which means changes can be made during the development process. This is important because the system may need improvements based on user feedback. Agile also supports continuous testing which helps reduce errors and improve the quality of the system. It is widely used in modern software development because it is flexible and efficient [8].

Agile development also encourages teamwork and regular communication. Each part of the system can be tested before moving to the next stage which helps ensure that the system works correctly. The main reason for choosing agile is because it allows the project to adapt to changes and produce a better final system that meets user needs.

Design

The design of the system is an important part of the project because it shows how the system will work and how users will interact with it. Different design tools such as flowcharts and wireframes will be used to explain the system clearly.

A flowchart will be used to show how the system processes data. The process will start with user input such as habits mood and daily activities. This data will then be analyzed using artificial intelligence to identify patterns and possible risks. The system will then provide output such as alerts recommendations or feedback to the user. This helps to clearly explain how the system operates.



A wireframe will be used to show the layout of the application. It will include different screens such as login dashboard behavior tracking and alert notifications. The wireframe helps to plan how users will interact with the system and ensures that the design is simple and easy to use. The system will collect user data and store it securely using cloud storage. Artificial intelligence will be used to analyse the data and detect patterns related to addiction behavior. This allows the system to provide personalized support to users and help them manage their behavior more effectively.

The project will use both quantitative and qualitative analysis. Quantitative analysis focuses on numerical data such as how often certain behaviors occur. Qualitative analysis focuses on user experiences and opinions which help provide a deeper understanding of behavior. Using both methods together improves the quality of the research and provides more reliable results [9].

Ethical Considerations

Ethical issues are very important in this project because it involves sensitive user data. It is

important to protect user privacy and ensure that all data is stored securely. Users must give consent before their data is collected and they should be informed about how their data will be used. Proper ethical guidelines must be followed to reduce risks and ensure the system is safe to use [10].

In conclusion the agile development method and proper system design will help create an effective and flexible system. The use of flowcharts and wireframes will support the development process and improve understanding. By using appropriate research methods and following ethical guidelines the project can produce reliable and useful results.

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