

SECJ1023 – PROGRAMMING TECHNIQUE II SESSION 2022/2023 – SEMESTER 2 PROJECT REPORT









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Introduction

Mental health has grown to be a major concern in today's fast-paced, fiercely competitive world, affecting people of all ages, backgrounds, and cultures. An upsetting sign of how serious this problem is on a global scale is the increase in suicide rates and attempted suicides. People's mental health has suffered as a result of the rising pressures and demands of modern life, as well as societal expectations and the impact of technology. It is imperative to address this urgent issue and investigate cutting-edge solutions that encourage mental wellness and resilience.

Individuals are under tremendous pressure to succeed and achieve, especially students who are subject to fierce academic competition and constant pressure to perform at a high level. High levels of stress, anxiety, and feelings of inadequacy may result from this. Similar to children, adults in various professions work to gain acceptance and status, frequently at the expense of their mental health. Social media's promotion of unrealistic standards and constant comparisons adds to people's feelings of unhappiness and low self-worth.

The impact of mental health extends beyond personal well-being, affecting productivity, relationships, and overall societal harmony. It is imperative to foster a culture of open dialogue, empathy, and support to create a more inclusive and compassionate society. By raising awareness, reducing stigma, and providing accessible resources, we can empower individuals to prioritise their mental well-being and seek the help they need.

In this report, we will explore a proposed solution aimed at addressing mental health challenges through an innovative approach. Drawing inspiration from classic games, our proposed game, "Emo Whacker," combines entertainment with educational elements to promote emotional intelligence and stress management. By actively engaging in gameplay mechanics that involve whacking negative emotions and collecting positive ones, players can develop skills to cope with stress and enhance their emotional well-being.

We have the chance to use the power of gamification to assist people on their path to better mental health by fusing technology and mental health. Through this report, we hope to raise awareness of the value of prioritising mental wellness and offer information about the potential for cutting-edge tools like "Emo Whacker" to improve people's lives.

Problems / Issues

Suicide and attempted suicide are serious issues that affect people everywhere and cut across age, culture, and geography. In recent years, mental health has become a major global public health concern and a formidable obstacle. According to estimates from the World Health Organisation (WHO), there were 70,000 suicide-related deaths in 2019 alone (Lew et al., 2021). This sobering statistic only emphasises how serious the situation is, and regrettably, these figures keep going up every year.

The intense competition that affects modern society is one factor that contributes to this troubling trend. From an early age, students are motivated to earn excellent grades in order to be recognised and validated. Their mental health may suffer greatly as a result of the pressure to perform exceptionally well academically, which can cause feelings of inadequacy, anxiety, and even hopelessness. In the adult world, striving for respect from others and high status can become a huge source of stress and unhappiness. The constant pressure to live up to society's standards can have a negative impact on a person's mental health, worsening feelings of hopelessness and worthlessness.

Moreover, the pervasive influence of social media and the digital age have further compounded the issue. The constant exposure to the carefully curated lives and achievements of others can create unrealistic standards and comparisons, deepening feelings of inadequacy and fostering a sense of disconnection and loneliness. The relentless pursuit of perfection in an imperfect world can leave individuals feeling overwhelmed, isolated, and desperate.

It is essential to recognise the pressing need for efficient strategies and interventions to deal with these issues. Prioritising and de-stigmatising mental health is important for ensuring that people have access to the systems and tools they need. Schools, workplaces, and communities should all incorporate mental health education and awareness into their operations. Individuals can develop resilience, emotional intelligence, and coping mechanisms by creating safe spaces for open discussions about emotions, stress management, and self-care.

Objectives / Proposed Solutions

We created the game "Emo Whacker" as a proposed solution for the issue of mental health and the rising rates of suicide and attempted suicide. With the intention of giving people who may be exhausted from studying, working, or other related activities a stress-relieving activity, this game draws inspiration from two classic games, "Whack-A-Mole" and "Gold Miner."

While the concept of whack-a-mole involves cartoonish moles and a straightforward whacking mechanic, our game, Emo Whacker, takes a different approach. It uses emotions to address mental health issues, which are prevalent in today's society. By whacking the negative emotions, players can actively engage in the process of confronting and dealing with their negative emotions. This aspect of the game can provide a cathartic and empowering experience, allowing players to take action against their negative feelings.

On the other hand, the game also encourages players to grab the positive emoticons. This aspect of the gameplay represents the active pursuit of positive experiences, contributing to a sense of well-being and happiness. By engaging in the process of seeking out and collecting positive emoticons, players can learn the importance of actively managing their emotions and seeking positivity in their daily lives.

Instead of developing a game based on lives, the game uses a marking system. Each emoticon hit or grabbed offers a certain number of marks, and the objective is to achieve the highest score possible within the given 30-second timeframe. This scoring system adds a competitive element to the game, motivating players to strive for better performance and higher marks. By aiming for the highest possible score, players develop a sense of achievement and competitiveness.

Another key objective of the game is to teach players about emotional intelligence and the importance of managing their emotions effectively. Through gameplay mechanics and the theme of whacking negative emotions and grabbing positive ones, players can gain a better understanding of their own emotional states and learn strategies for handling stress and challenging circumstances in their daily lives.

Gameplay

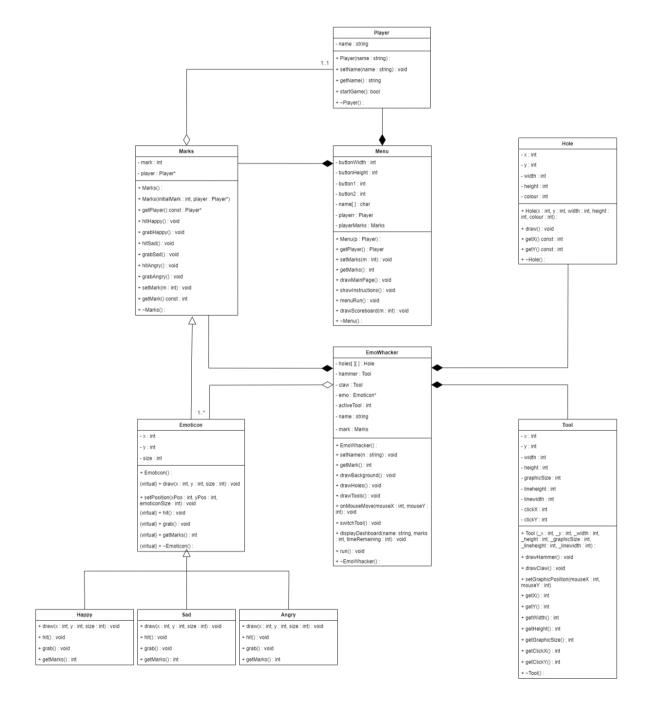
To explain the gameplay of Emo Whacker, before the game, the menu is displayed for the user, where they can choose between "Start Game" or "Instructions". If they choose the "Start Game" button, the player will be prompted to enter their name, and by pressing any key, the game starts. Alternatively, pressing the "Instructions" button leads them to the general instructions on playing the game.

During the game, there are two tools available: the hammer and the claw. There are 3 emoticons: happy, sad, and angry, whereby users hitting (using a hammer) or grabbing (using a claw) will provide them with different marks. Changing the tools requires the spacebar, while doing the actions of whacking or grabbing can be done by pressing on the left click of the mouse. Players have to whack the negative emoticons (sad and angry) and grab the positive ones (happy). Whacking the angry provides +20 marks, and whacking the sad provides +15 marks. On the other hand, whacking on the happy emoticon causes them to lose 10 marks. Inversely, grabbing the happy emoticons adds 30 marks, while grabbing the sad and angry emoticons causes them to lose marks of 15 and 20, respectively. The marks can be summarised in the following table:

Emoticons / Method	Whack (Hammer)	Grab (Claw)
Happy (Yellow)	-10	+30
Sad (Blue)	+15	-15
Angry (Red)	+20	-20

Besides, the player is given 30 seconds to complete the game. While playing the game, they can view the current score, which keeps updating, in the middle of the screen. In the game, each emoticon will pop up for 1 second each time and go back to its respective hole after that. Failure to whack or grab the emoticons will not cause them to lose any marks. However, if the player's mark is below zero, the game is executed immediately and displayed on the final scoreboard. Only the player's score and the top 3 scores will be visible on the screen in the final scoreboard.

UML Class Diagrams



Benefits and Summary of Proposed Game

Firstly, the game can increase players' happiness levels. By implementing gameplay mechanics that involve hitting negative emotions while grabbing positive ones, players can experience a sense of satisfaction and empowerment. The act of actively engaging with the game and "whacking" away negative emoticons can provide a cathartic release, allowing players to feel better about themselves and their ability to tackle negative emotions. Although it may not be the same as venting in real life, the game can still have a similar impact in terms of improving mood and increasing happiness.

Additionally, the game promotes a sense of competitiveness among players. With its two different endings, players are motivated to extend their gameplay and avoid the game ending too quickly. This desire to achieve a higher score and remain in the game for longer periods creates a sense of healthy competition. Furthermore, the display of the top three scores achieved adds an extra layer of motivation, as players strive to earn a place on the leaderboard. This competitiveness can drive players to continuously improve their skills and challenge themselves, enhancing their overall gaming experience.

"Emo Whacker" offers an exhilarating gameplay experience that stimulates an adrenaline rush in players. The combination of time constraints, the need for quick reflexes, and the pursuit of high scores creates an exciting and immersive environment. Players must remain focused and give their best effort to succeed within the allotted time, intensifying their engagement and generating a heightened level of enthusiasm. This dynamic gameplay element adds an extra layer of enjoyment, keeping players captivated and entertained throughout their gaming sessions.

Beyond just giving you a rush of adrenaline, the game is made to be extremely enjoyable. The potential for high scores by carefully whacking or grabbing the right emoticons causes excitement and emotion. The desire to perform better and produce better results drives players constantly. The potential to surpass one's own or friends' scores and reach new milestones creates a strong sense of challenge and motivation. The satisfaction that results from such accomplishments in "Emo Whacker" greatly increases the joy and sense of accomplishment that players experience when they win.

In a nutshell, "Emo Whacker" offers a novel and entertaining approach to dealing with mental health issues. The game successfully combines excitement, anticipation, and a competitive spirit through its alluring gameplay mechanics, creating a fun experience. It goes beyond conventional gaming by providing a unique approach to encourage mental health and give players useful skills to meet the challenges of daily life. "Emo Whacker" presents a novel method for fostering mental health through its gameplay. Players gain emotional resilience and control skills by participating in the game's mechanics, which they can use in real-life situations. The game helps players learn how to control their emotions, improve their coping skills, and enhance their general mental health.

References

Lew, B., Kõlves, K., Lester, D., Chen, W. S., Ibrahim, N. bt, Khamal, N. R. bt, Mustapha, F., Chan, C. M. H., Ibrahim, N., Siau, C. S., & Chan, L. F. (2021, November 24). Looking into recent suicide rates and trends in Malaysia: A comparative analysis. Frontiers. https://www.frontiersin.org/articles/10.3389/fpsyt.2021.770252/full#:~:text=Suicide%2 Oremains%20a%20major%20public,year%20(1%2C%202).