# **EduHub**

Team name: jaypee

By Jess team leader, Hany assist lead and design, Yodhi researcher, Alex foundations designer, Faiq questions design



EduHub is a mostly educational website that specializes in:

- Maths
- English
- Science

Eduhub is a online educational platform that specialises in assisting students with learning difficulties through the help of quizzes.

### Who is it for?

Eduhub specific audience is secondary school students who may have, or experience some form of learning difficulty.

Though our website is aimed more specifically to support individuals with ADHD and autism we also have tool embedded in our website to support individual needs



# Small background information on ADHD and autism

ADHD-more specifically known as attention-deficit/hyperactivity disorder impacts an individual's development as they will have an unintentional repetitive action such as hyperactivity-impulsivity and/or inattention which can interfere with the individual in question functioning.

Additionally individuals struggling with ADHD can struggle with: following instructions, organisation, stress, impulsiveness and impatience.

We feel with specific implementations to our website we can help them in education.

**Autism-** is a neurodevelopmental disorder that is usually found commonly in children but can be seen in adults, this disorder is life long.

Individuals with autism can display their emotions differently as well as have difficulty understanding others emotions, this can be in communication or physically showing them.

It can also affect how they learn and behave which is why we feel that they need more support in their development through education.



#### autism

#### 7 in 10

Seven in ten autistic children and young adults said school would be better if more teachers understood autism.

#### 31.3%

31.3% of pupils with EHCPs have autism listed as their primary type of need. That works out as 103,400 pupils and is the most common type of need listed among EHCPs in the UK.

#### 700,000

There are 700,000 autistic people in the UK – that's more than 1 in 100. If you include their families, autism is a part of daily life for 2.8 million people.



#### **ADHD**

#### 2% to 5%

between 2% to 5% of school aged children have ADHD

#### 69%

Surveys state that 69% of children with ADHD get into trouble with teachers

#### 63%

63% of students with ADHD aren't able to finish their work.

### Why would you choose quizzes?

Students can use the quizzes as in class, as a revision tool or even to help understand concepts they may of been struggling with.

Teachers can also use these quizzes to help them understand where there students knowledge is lacking or where there strengths are.

This can help benefit the students to get the support they may need.

As Well as trying changing some of the statistics our previous slide





Tools

### **TINY TUTOR**

Tiny tutor is an ai generated robot built to help the users for if they have any questions that they can't find the answer to.

It is also to help explain any questions you may have relating to maths science or english

https://poe.com/tiny\_tutor



### A quick example of how the ai system works

tiny\_tutor Poe

hey, I am tiny tutor, I can help with any of your English maths and even science questions.

what is bidmas

tiny\_tutor Poe

Sure thing! BIDMAS is an acronym that stands for Brackets, Indices (also known as exponents or powers), Division and Multiplication (which are grouped together and carried out from left to right), Addition and Subtraction (also grouped together and carried out from left to right). It is also known as BODMAS, PEMDAS, and GEMDAS in other countries.

BIDMAS is a set of rules that explains the order in which operations should be carried out in a mathematical expression. For example, in the expression:

 $3 + 5 \times 2$ 

according to BIDMAS, you should do the multiplication first (5 x 2 = 10), then add the result to 3, so the answer is 13.

 $3 + 5 \times 2 \rightarrow 3 + 10 \rightarrow 13$ 

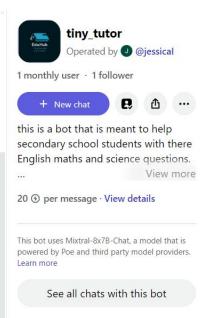
If you have any more question or need help with any example, I am here to help! just let me know!











### Alex foundations designer/web design

&

Hany assistant lead/web design

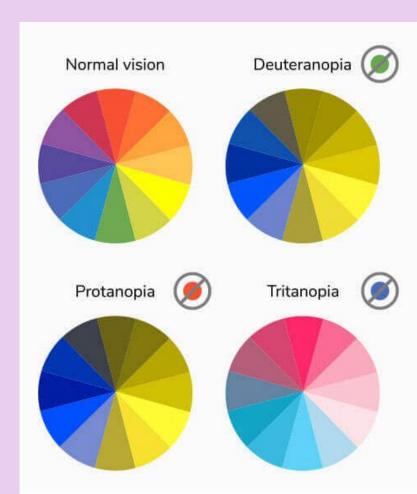
# font, colour and size converter

this benefits individuals who could have color blindness. There are different types of color blindness as displayed in the diagram, as well as the colours they cannot see

By having this we can also have pre set modes to help them see the quizzes as clear as possible.

By having the ability to change the sizes of the text this helps those poor eyesight making it easy for them to see.

or if they just want to customise how it looks.



### Tap out

During the quizzes there is a feature called "tap out" this give the user a form of pause button so that they can take a break away from the quiz.

This is im place to help prevent users from feeling overwhelmed.

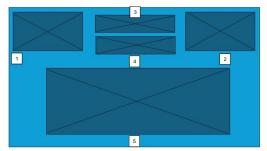
This can also help to combat impulsiveness and impatience, as they can take a break away for there quiz to take a break for as long as they see fit.

We hope that this function can help change or aid some of the statistics on the other slide.



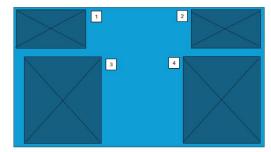
### Our first step: Wireframes

#### Homepage:



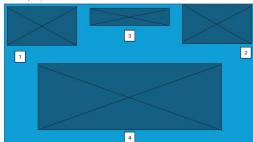
- 1 / 2) Logo placement: The Edu'Hub logo will be placed on both sides of the webpage. The idea behind this placement is to ensure our brand is immediately noticed by the consumer and captivates the attention of any people passing by.
- 3) Name of Webpage: in a similar fashion to the logo, the title or name of the webpage will be placed right above the login/sign-up buttons. As stated previously this design was done to ensure that the end-users know what product they are using.
- 4) Login/sign up: The Login and Sign-up feature will be placed within this location, where it is easily visible. This was done to guarantee the interface of the website is easily accessible to all

#### Login/sign up page:



- 1/2)- logo placement: Once again, the logo will be placed on either side of the webpage.
- Login feature: this planned feature will contain a login using a username and password, or through Google and Apple ID. A link for a separate page will be provided for teachers/administrators.
- 4) Sign-up feature: Here students can sign up if they don't have an account. The same applies to

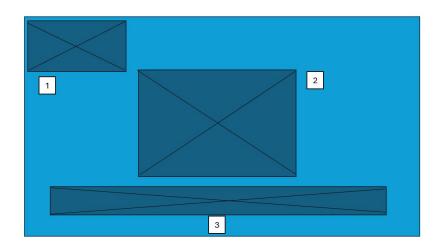
#### Exemplar questions:



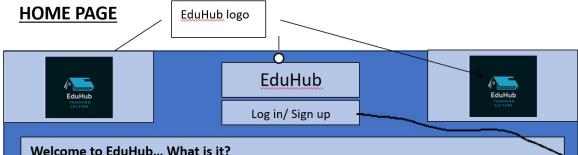
- 1/2)- logo placement: Once again, the logo will be placed on either side of the webpage.
- 3)- Title of subject/field of study: A bold text will be placed here to indicate what subject the student is studying, giving end-users with special needs a better understanding of what topic they are being questioned on.
- 4) Question: Here a question will be laid out clearly and concisely and will include all the features we discussed such as the time stop, Al assistant, and finally, the font/colour format.

### Wireframes:

#### Al feature page:



- 1) logo placement: Once again, the logo will be placed on either side of the webpage.
- 2) Character: A friendly photo of the "tiny tutor" will be present, this is an attempt to create a soothing environment for the users.
- -Al: The Al search bar will be present at number 3. This is where students will be able to ask a variety of questions.



EduHub is a learning platform created to teach the young and wonderful minds of the world. Our goal is to further the mathematical knowledge of all students, no matter their ability. With our range of levels from basic multiplication and division, to GCSE and SATs level maths, we have plenty of questions and revision material available to you!

#### Get started!

To get started on our platform you must first make an account. You can do that by CLICKING HERE. ,

As soon as you have made your account and logged in, we will ask you what level you are currently at and what you are studying for. Then you will be introduced to your Tiny Tutor, who will show you how to make your way around the platform.

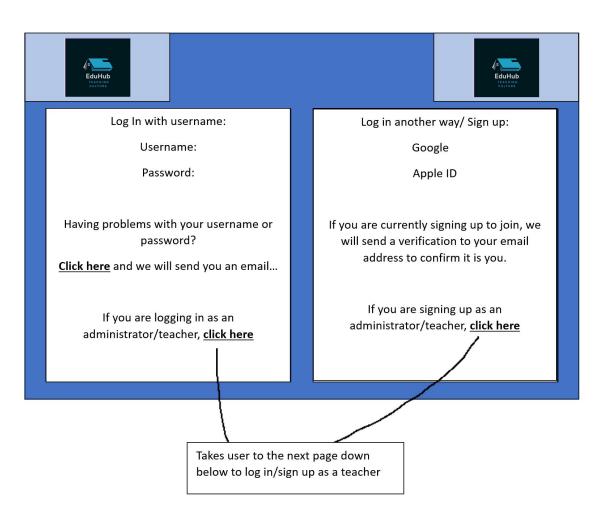
Happy learning!!!

Takes user to login page

### **Development** phase

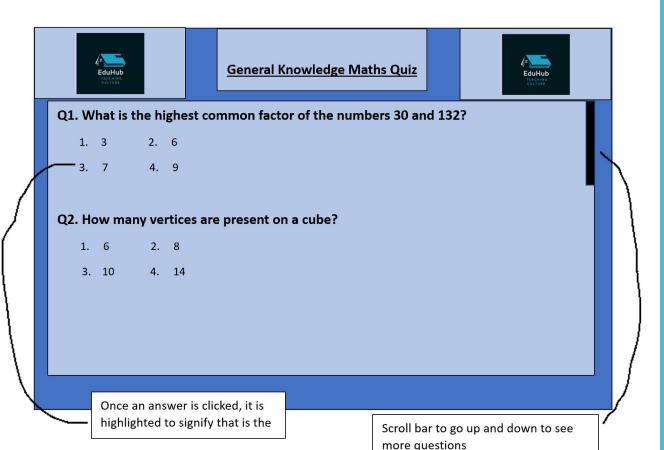
We wanted a simplistic design that would be easy for users to follow and navigate. This is the first design of the home page.

#### **LOGIN PAGE**



# Development phase

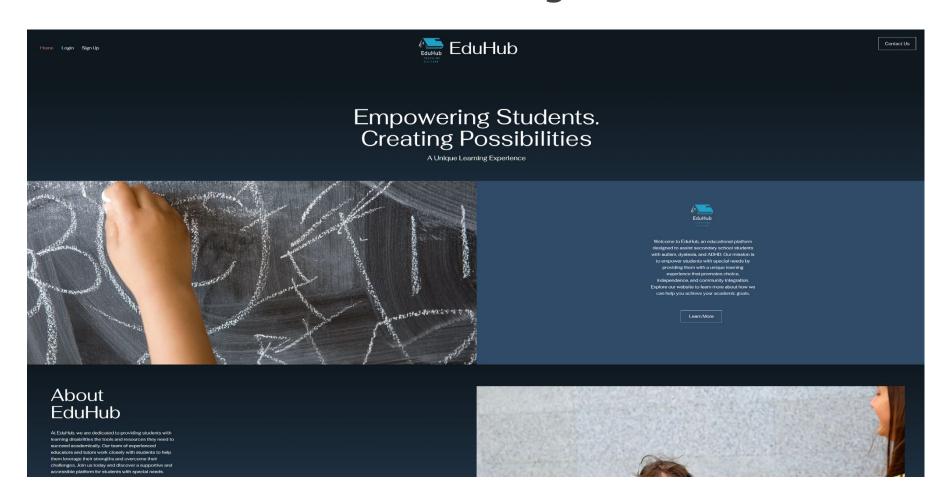
#### **QUESTIONS PAGE**



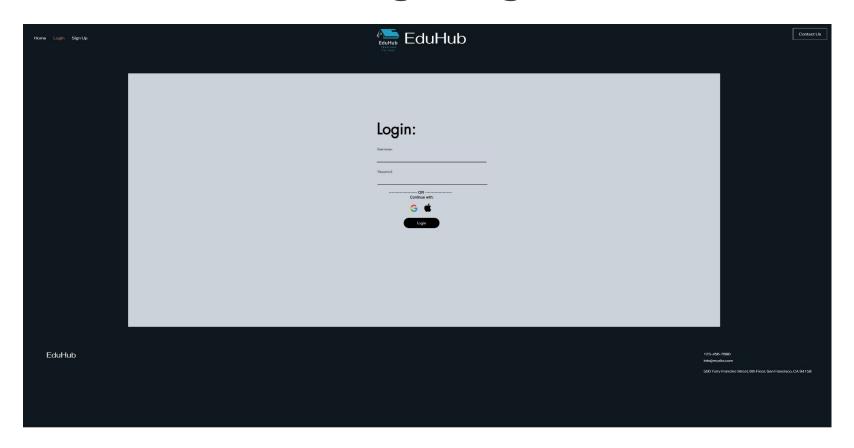
# Development phase

During the development phase, more designs were created for different parts of the website such as a login/sign up page, quiz pages (including questions and answers), and more. The simplistic design and colour scheme was consistent throughout all designs to reinforce the fact that we want this to be an easy website to use, no matter the users age or technological ability

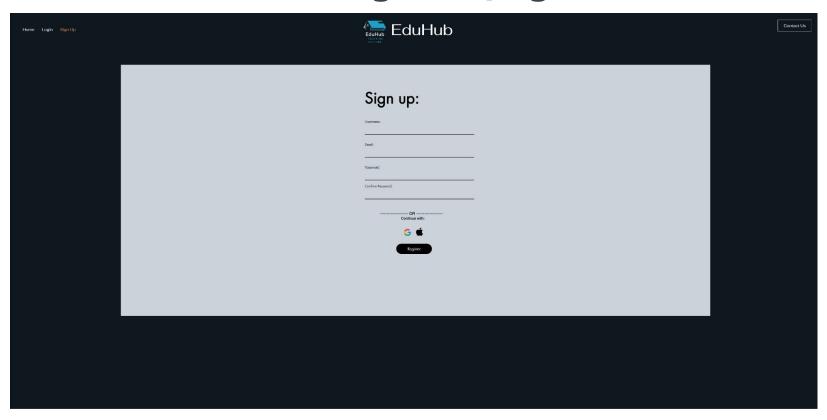
### End result: Home Page



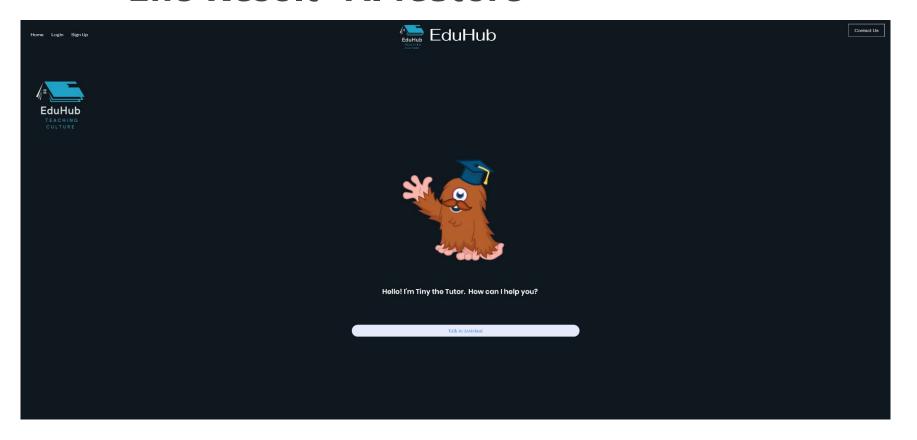
### End Result: Login page



### End Result: Register page



### **End Result: Al feature**



## Hany brief Research.

### Methodology research conducted.

The incremental methodology is a step-by-step approach to managing large projects, dividing them into smaller, more manageable parts. When applied to software development, the initial stage focuses on designing, implementing, and testing the core features. Subsequent stages then build upon this foundation, incorporating additional functionalities that are also tested and refined. This iterative process results in an early working software version that can be continuously improved and expanded.

In contrast, the waterfall methodology follows a linear sequence of development stages, such as planning, designing, and testing. If issues arise, it may be necessary to return to earlier stages, but this must be done systematically to avoid confusion and errors in the final product. To ensure success with this approach, comprehensive research, and meticulous organization are crucial.

The Agile methodology is characterized by constant collaboration and iterative improvement. It brings developers, clients, and stakeholders together to work on smaller portions of the product, refining them based on feedback and evolving requirements. This cyclical improvement process continues until the entire product meets the desired standards and fulfils all expectations.

The spiral model promotes a step-by-step release and enhancement of a product through its various stages. It facilitates the creation of prototypes at each juncture, which are then subjected to rigorous testing and assessment, leading to necessary modifications. This cycle is repeated multiple times until the final product is realized. A key advantage of this model is its capacity to address unforeseen risks that arise during the project's execution. Each loop in the spiral signifies a stage in the software development process, with the radial dimension symbolizing the project's costs and expenditures. Meanwhile, the angular dimension denotes the current progress phase within the spiral.

## Faiq researcher

&

Yodhi researcher

# How to make a quiz for students with ADHD or Autism

- Clear and Concise Instructions
- Visual Supports
- Shorter, Focused Questions
- Structured Format
- Variety of Question Types
- Engagement Strategies
- Timed Breaks (Tap Out)
- Positive Reinforcement



### Instructions

The following quiz will test your understanding:

- feel free use the tap out button (pause/play button), to work efficiently.
- use the given space rough working
- There are 10 questions, each worth 1 point.

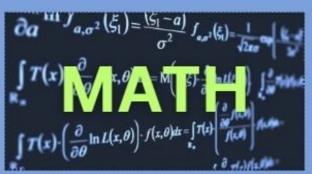
The time is unlimited

 Write down your answers in your notebook. No use of notes or devices!

### **SUBJECTS**











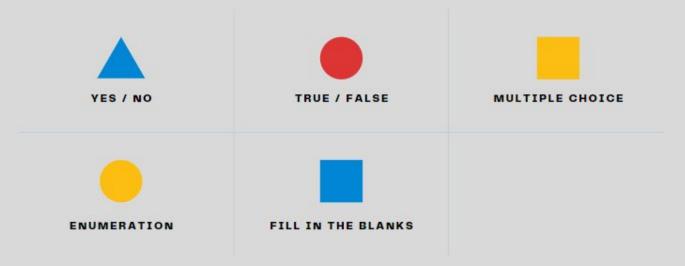


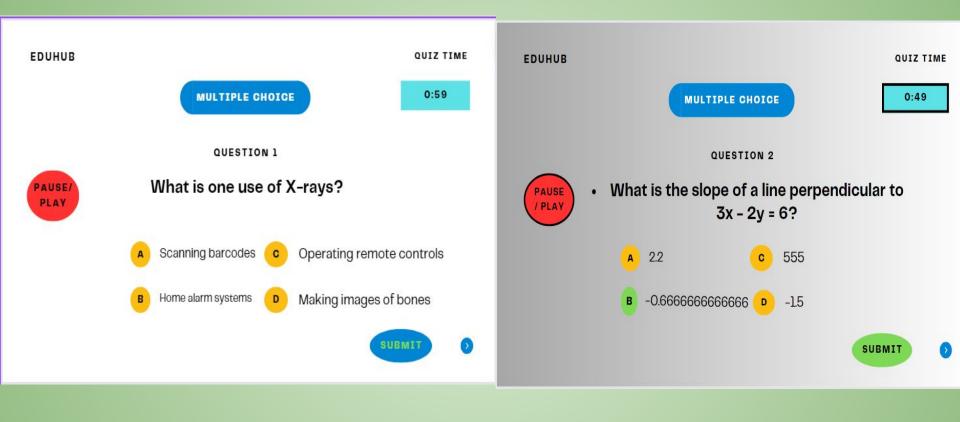


CONFIRM

EDUHUB QUIZ TIME

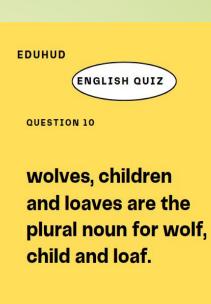
### **Quiz Categories**

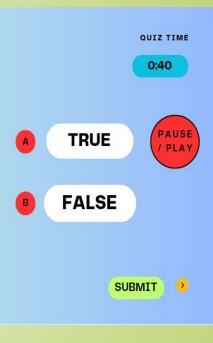














### **Question resources**

https://www.proprofs.com/quiz-school/story.php?title=pretest\_114

https://www.proprofs.com/quiz-school/story.php?title=basic-secondary-school-math

https://proprofs.com/quiz-school/story.php?title=english-proficiency-test\_6

https://www.proprofs.com/quiz-school/story.php?title=pp-untitled-quiz\_2 329190



**Structured Learning:** 

Immediate Feedback

**Active Learning** 

**Motivation**:

**Practice and Repetition** 

Identifying Areas of Difficulty

https://www.oxfordlearning.com/category/learning-challenges/

Project management by jess

The project management method used in our project was agile

#### The google docs contains

- Time logs/meetings
- Initial project plan research
- Roles/assigned tasks

We also used trello for task allocation and managment

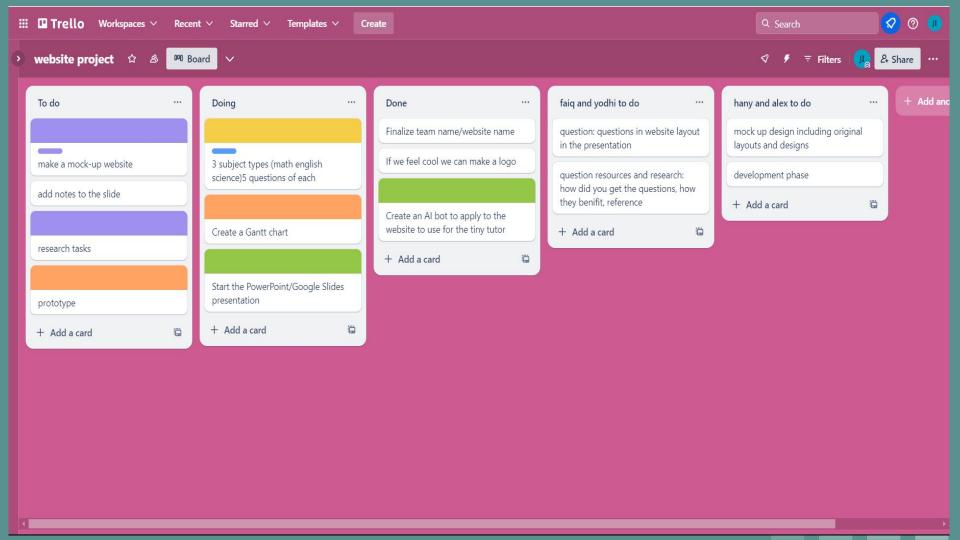


#### trello

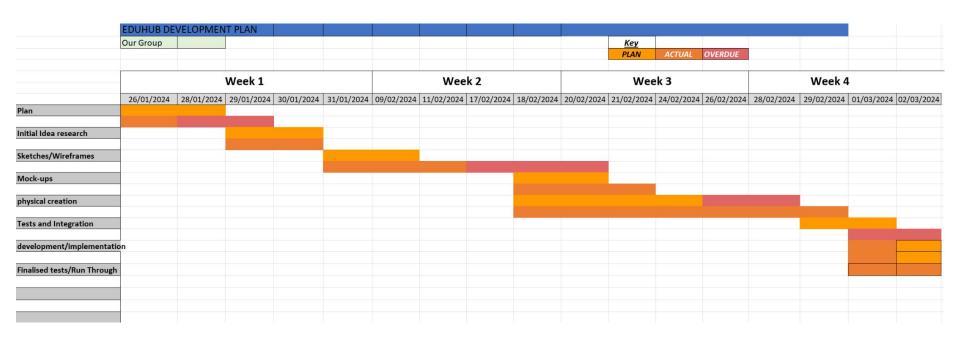
https://trello.com/invite/b/OWD8ve7T/ATTId b2239c5c1b729b9af8cc5e24a6c99b8CBD DCEE2/website-project

#### Google doc

https://docs.google.com/document/d/1K6Vn NcJ471o\_sxPC-oPmC5foQGfRZxHTgy4TtxL MmG8/edit?usp=sharing



## Gantt chart: Hany



### **Future features**

- Create your own quiz
- Flash cards
- Point system
- Working out after a question was wrong so they can improve
- User characters
- User character modification
- Optional competitive game play
- advertisements



# Alex Foundations designer

(sound effects)

Foundation designer, Web design

Proofreader

Explains how it relates to us, and why we chose to pursue this topic

Initial designs

Home page, login page sign ups (ie google or apple id)

Web design

Proofreader

## Hany Assistant lead

Assistant lead

Wireframes

Web design

Gantt chart

Vice team lead

Gantt chart

Mock up/wireframe

Research allocation/finding correct methodology

Physical implementation of the website

# Jess Team lead

Time logger, presentation creator

task assigner,

ai maker.

Team leader

Team management

Time stamps

Creating ai with appropriate tools

Ensuring the ai is child friendly

Trello board management

Lead presentation creator

# Faiq

Question maker and researcher 1

Proof reader

Researching into the most effective designs and formats for the questions

Research into the logos as well as design

Details into why we chose this idea

references

## Yodhi researcher

Question maker and researcher 2

Web tester

Research into making an effective and appropriate quizzes for students and those with learning disabilities

Creating questions based of information gathered

The information gathered has been both primary and secondary forms of research

Other tools used during the creation of the presentation

#### Trello

https://trello.com/b/OWD8ve7T/website-project

Poe

https://poe.com/chat/22i3u1a4899rk4i462z

Google docs

https://docs.google.com/document/d/1K6VnNcJ471o\_sxPC-oPmC5foQGfRZxHTgy4TtxLMm G8/edit?usp=sharing

# References

## Quiz references

www.duodesign.co.uk (2019). *MathsWatch*. [online] Mathswatch.co.uk. Available at: <a href="https://vle.mathswatch.co.uk/vle/">https://vle.mathswatch.co.uk/vle/</a>.

quizizz.com. (2015). *Quizizz* | *Where motivation meets mastery*. [online] Available at: <a href="https://quizizz.com/?lng=en">https://quizizz.com/?lng=en</a>.

Kahoot! (2019). *Kahoot!* | *Learning Games* | *Make Learning Awesome!* [online] Kahoot! Available at: https://kahoot.com/.

### weblinks

National Health Service (2021). *Attention deficit hyperactivity disorder (ADHD)*. [online] NHS. Available at: https://www.nhs.uk/conditions/attention-deficit-hyperactivity-disorder-adhd/.

www.icdl.com. (n.d.). *Home of DIRFloortime*® (*Floortime*) - *About Autism*. [online] Available at: https://www.icdl.com/parents/about-autism?gad\_source=1 [Accessed 7 Mar. 2024].

Anon, (2005). Available at: http://www.addiss.co.uk/schoolreport.pdf.

www.hertfordshire.gov.uk. (n.d.). *Education, health and care plans (EHCP)*. [online] Available at: <a href="https://www.hertfordshire.gov.uk/microsites/local-offer/education-health-and-care-plans/education-health-and-care-plans-ehcp.aspx#:~:text=An%20education%2C%20health%20and%20care%20plan%20(EHCP)%20is%20a.

Wikipedia Contributors (2019). Incremental build model. [online] Wikipedia. Available at: https://en.wikipedia.org/wiki/Incremental\_build\_model.

tryqa.com. (n.d.). What is Incremental model- advantages, disadvantages and when to use it? [online] Available at: <a href="https://tryqa.com/what-is-incremental-model-advantages-disadvantages-and-when-to-use-it/">https://tryqa.com/what-is-incremental-model-advantages-disadvantages-and-when-to-use-it/</a>.

Wrike (2022). *The Benefits & Advantages of Agile | Wrike Agile Guide*. [online] www.wrike.com. Available at: <a href="https://www.wrike.com/agile-guide/benefits-of-agile/">https://www.wrike.com/agile-guide/benefits-of-agile/</a>.

Martin, M. (2019). What is Spiral Model? When to Use? Advantages & Disadvantages. [online] Guru99.com. Available at: https://www.guru99.com/what-is-spiral-model-when-to-use-advantages-disadvantages.html.

BeyondAutism (n.d.). *Statistics*. [online] BeyondAutism. Available at: https://www.beyondautism.org.uk/about-autism/understanding-autism/statistics/?gad\_source=1&gclid=Cj0KCQiAoeGuBhCBARIsAGfKY7xUtFQITAivQJkqsbjwUpih0-7gUkDbCaKbvH7x87ddcro8RtQk5 MoaAhEVEALw wcB [Accessed 7 Mar. 2024].

www.proprofs.com. (n.d.). *Math And Science Basic Test! Trivia Quiz - Trivia & Questions*. [online] Available at: https://www.proprofs.com/quiz-school/story.php?title=pretest\_114 [Accessed 7 Mar. 2024].

www.proprofs.com. (n.d.). *Basic Secondary School Math - Quiz, Trivia & Questions*. [online] Available at: https://www.proprofs.com/quiz-school/story.php?title=basic-secondary-school-math [Accessed 7 Mar. 2024].

ADHD Foundation (2018). *ADHD: TEACHING AND MANAGING STUDENTS WITH Systems, strategies solutions*. [online] Available at:

https://www.adhdfoundation.org.uk/wp-content/uploads/2022/03/Teaching-and-Managing-Students-with-ADHD.pdf.

## Image links

Google.com. (2024). Redirect Notice. [online] Available at:

https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.cloudways.com%2Fblog%2Fbest-web-design-tools%2F&psig=AO vVaw0XFX5fpYSijyg3qmFCmtpV&ust=1709304862976000&source=images&cd=vfe&opi=89978449&ved=0CBMQjRxqFwoTCKj t8Pvm0IQDFQAAAAAAAAAAAAAAAE [Accessed 7 Mar. 2024].

Google.com. (2024). Redirect Notice. [online] Available at:

https://www.google.com/url?sa=i&url=https%3A%2F%2Fsurveysparrow.com%2Fblog%2Fleading-questions%2F&psig=AOvVaw 24kQB1o4U5tzmW27NQpBqj&ust=1709305501693000&source=images&cd=vfe&opi=89978449&ved=0CBMQjRxqFwoTCOiRq Kzp0IQDFQAAAAAAAAAAAAAAJ [Accessed 7 Mar. 2024].

Google.com. (2024). Redirect Notice. [online] Available at:

https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.linkedin.com%2Fpulse%2Fuse-statistics-research-dr-subhabaha-pal&psig=AOvVaw3aPb4tz\_XggNmsKl8rUFQS&ust=1709306149916000&source=images&cd=vfe&opi=89978449&ved=0CBMQjRxqFwoTCMjKqtju0IQDFQAAAAAAAAAAAAAE [Accessed 7 Mar. 2024].

Boomer.at. (2024). Available at: https://www.boomer.at/fileadmin/\_processed\_/4/9/csm\_quiz\_9f38a23b13.jpg [Accessed 7 Mar. 2024].

Mzstatic.com. (2024). Available at:

https://is3-ssl.mzstatic.com/image/thumb/Purple126/v4/b9/23/f8/b923f82e-de2c-bcae-19a b-e6c5b7d723f7/Applcon-0-0-1x\_U007emarketing-0-0-0-7-0-0-sRGB-0-0-0-GLES2\_U002 c0-512MB-85-220-0-0.png/256x256bb.jpg [Accessed 7 Mar. 2024].

Google.com. (2024). Redirect Notice. [online] Available at:

https://www.google.com/url?sa=i&url=https%3A%2F%2Fvenngage.com%2Fblog%2Fcolor -blind-friendly-palette%2F&psig=AOvVaw08eAi3X3oYXRq7LssZTejK&ust=170937862595 8000&source=images&cd=vfe&opi=89978449&ved=0CBMQjRxqFwoTCPiZ\_uD50oQDFQ AAAAAAAAAAAABAE [Accessed 7 Mar. 2024].