

TATAL

USER MANUAL

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First Time Launch

Thank you for choosing Tātai as your choice of Math Aid application. Before you launch Tātai, please be aware that it is only compatible with UNIX/Linux operating systems and requires the HTK software installed on your machine to function correctly.

Please visit: htk.eng.cam.ac.uk/ for more details.

Furthermore, you will also need crucial “Maori Number” folder on your working directory of the executable file for Tātai to function correctly.

Upon first launch, the Tātai application will create a folder “User” in your application working directory containing one directory: “anonymous”. This will update as you go on with using the application and registering users with the application.

Main Menu

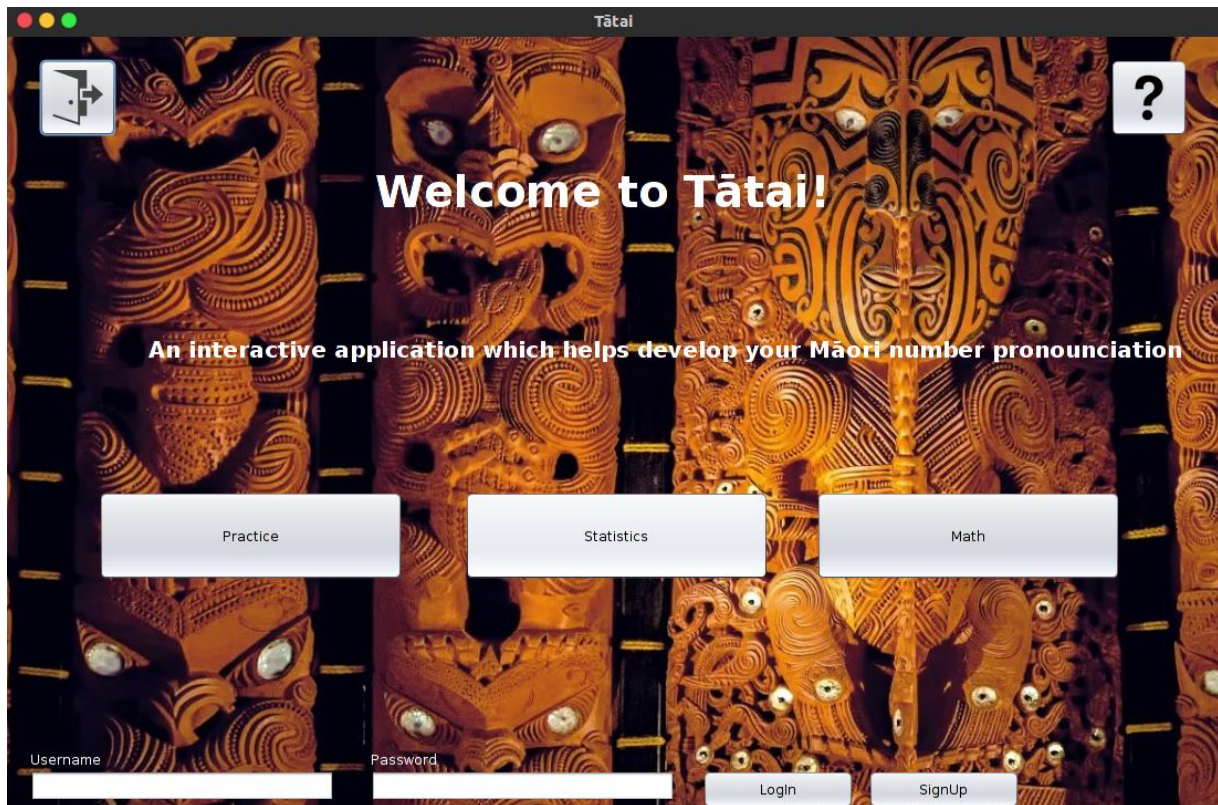


Figure 1 Tātai - Main Menu

The entry point of the Tātai application is the Main Menu (shown in figure 1 above) which contains the entry points to the main features of the application. The application is used by two types of users: the first-time user or a returning user.

- The first-time user can sign up and get his login details saved.
- The returning users can login to get their personalized view of the application.

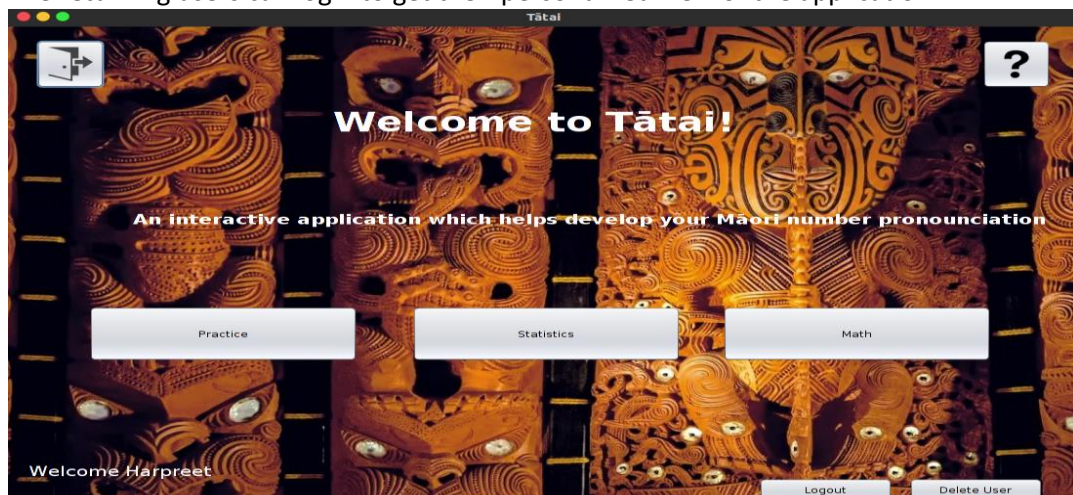


Figure 2 Tātai - Welcome Display

When you login, user's name will be shown on the bottom left panel with a welcome message. (see figure 2)

Login

You can choose to either login or use the application without logging in. To login you need to enter your login details at the bottom left of the screen. For logging in, you need a username and password. If you haven't logged in before, you will need to first sign up. Follow the following steps to login:

1. Enter in your username in the first text field which says username on top of the respective text field.
2. Enter in your password in the text field right next to it which says password above it.
3. Click login.

Sign up

To sign up click on the sign-up button right next to login. It will take you to new window. This will have several text fields labelled as Full Name, Username, Password. Enter all these fields.

Confirm password by writing password in the confirm password field as you cannot change password once its set. Click sign up to create new user. The fields cannot be left blank. If all fields entered are valid, you will get a dialog box which says, "A new user is created!"

On the other hand, if a username is already created or text field is left empty a new user is not created and you can change field names and try again.

A username as 'anonymous' can also not be created since that is the default username if you aren't logged in.

Logging out

To log out of your user, you should see figure 2 screen instead of figure 1. This would mean you are already logged in as a particular user. Therefore, you should be able to see the Log Out button as in figure 2 in the bottom right corner. Click the log

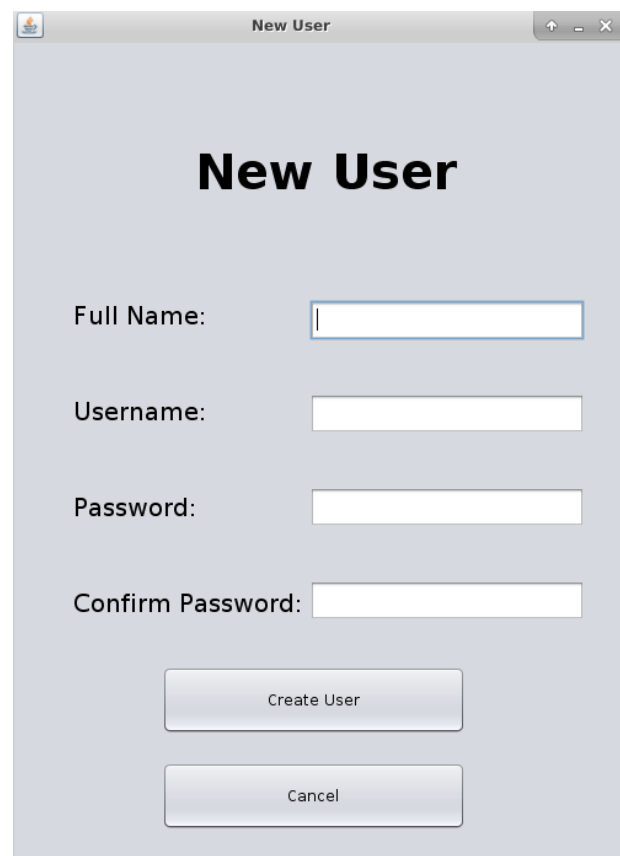
A screenshot of a web application window titled "New User". The window has a light gray background. At the top, the title "New User" is displayed in a large, bold, black font. Below the title, there are four text input fields arranged vertically. The first field is labeled "Full Name:", the second "Username:", the third "Password:", and the fourth "Confirm Password:". Each label is in a bold, black font. Below the input fields, there are two buttons: "Create User" and "Cancel". Both buttons are light gray with a subtle gradient and a thin black border.

Figure 3 Sign up form

out button. You should get a confirmation prompt to which you can press Yes. You should have successfully logged out and screen should be displayed as figure 1.

Deleting a user

To delete a user, you need to be logged in to that user. You should see figure 2 screen instead of figure 1. This would mean you are already logged in as a particular user. Therefore, you should be able to see the Delete User button in figure 2 in the bottom right corner. Click the Delete User button. You should get a confirmation prompt to which you can press Yes. You should have successfully deleted the user and screen should be displayed as figure 1.

Practice

To practice your Maori numbers, click on Practice in Main Menu.

You will be taken to a screen to choose which difficulty you want to practice on. There's 2 different types of difficulties in the practice mode:

1. Beginner – The Maori numbers shown in this level will be from 1 – 9 or from tahi to iwa. Numbers will be generated randomly between the above range and numbers have a high chance of being repeated on Beginner level.
2. Advanced – The Maori numbers shown in this level will be from 1 – 99 or from tahi to iwa tekau ma iwa. Numbers are generated randomly and since it is such a big range, numbers have very minimal chance of being repeated and different numbers being generated in this level.

Accessing Beginner Practice Mode

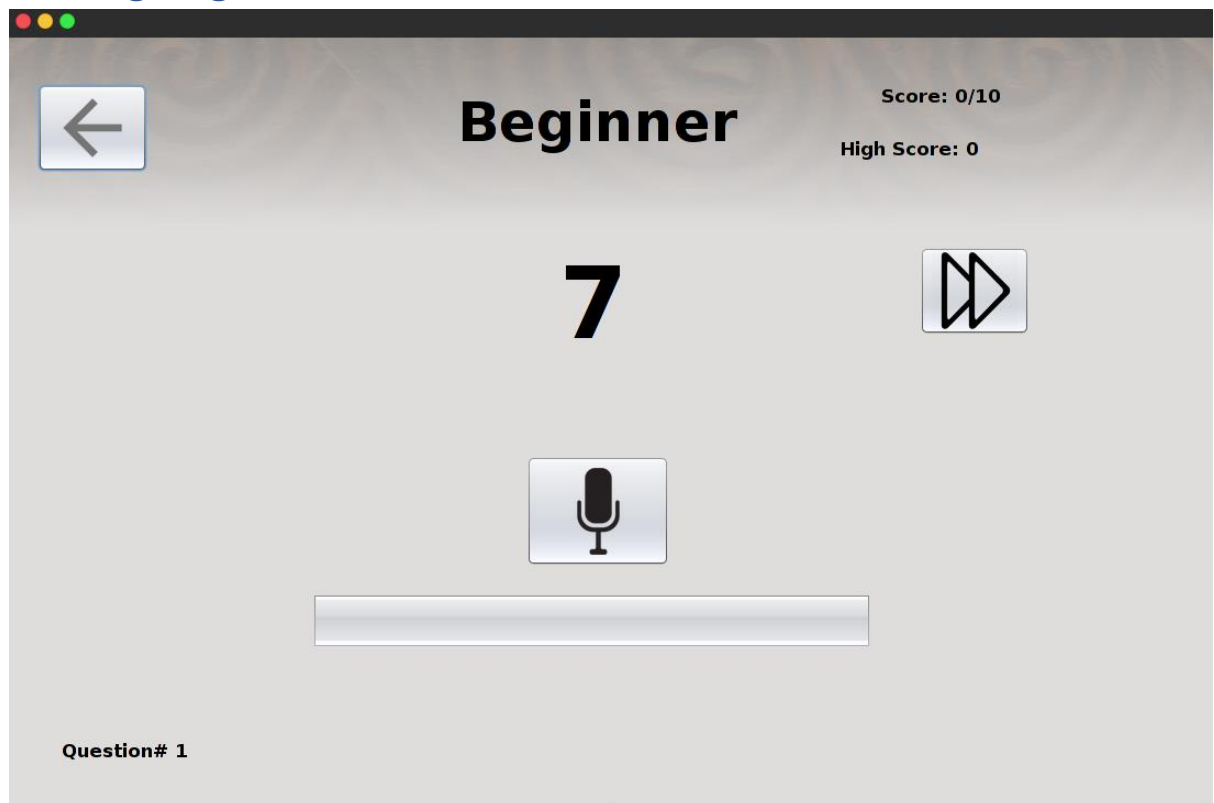


Figure 4 Beginner Practice

Clicking Beginner will start the Beginner practice mode and you will be taken to a screen explaining within what range the practice mode will show numbers in. Click Start to begin.

You will now see a number from 1-9 in the middle with a microphone button at the bottom. Pressing the microphone button will start the recording. To practice the number shown on the screen in Maori, press the microphone button and say the number in Maori. (see figure 3)

The recording happens for 2 seconds and therefore the user must say the whole number within the time frame. For the convenience of the user, a progress bar is displayed which will fill up in 2 seconds and hence shows how much time the user has before the whole number must be said.

To check the score at any time, read the score label on the top right of the screen. The score will be updated each question round and will let you know how much correct answers you've gotten so far.

The label at the bottom left of the screen will let you know which question number you are on. There are 10 questions each practice round and this will let you know many you've answered and how many questions are still left.

Getting Feedback for your recording

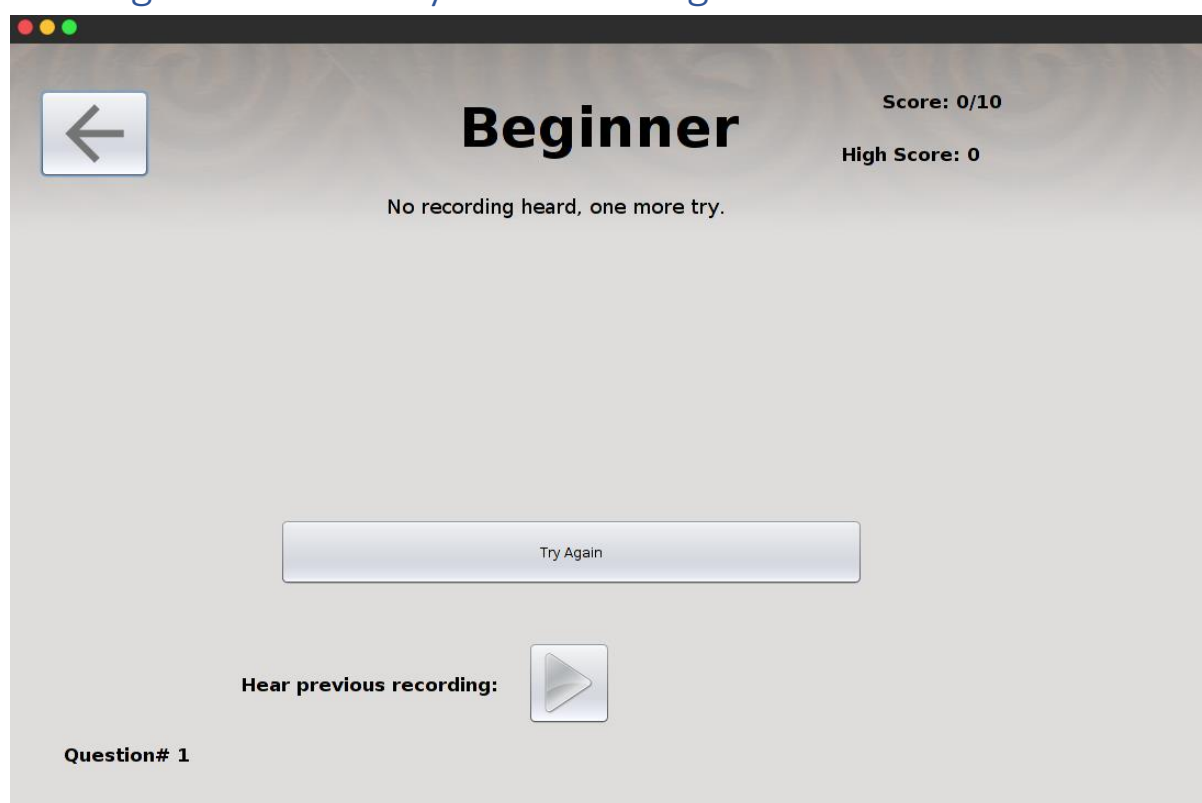


Figure 5 Feedback after a recording

After recording is done, the application would automatically take you to the feedback screen. The feedback will let you know what the HTK speech recognition has interpreted your recording as. If it is interpreted as the correct Maori translation of the number shown, it will return a message saying, "That was correct."

If the answer was interpreted as incorrect, the screen will show you what the speech recognition interpreted your recording as. You will get 2 tries to answer it correctly. If you get it wrong on the first try, you can try answering for the same question again by clicking 'Try Again' button. If you get it wrong on the second attempt, you will need to press the 'Continue' button to continue with the level which will take you to the next question.

Once you've recorded your answer, you can press the play button to hear your previous recording. This will play back what you have recorded on the last try which will also give you feedback on what you said. (see figure 4)

Round Statistics Breakdown



Figure 6 Results at the end of the level

After the 10 questions, you would be given the results for your feedback. It would return the score you got out of 10 for that level along with a text field. This would show each question and what the number presented was and whether you've gotten it right or wrong. (see figure 5)

Going to Advanced mode straight from Beginner

If you were on the beginner practice mode, and the score you got was equal to 8 or higher, you would be given the option to go the advanced level straight from that screen for convenience. To exit out of the result screen, just click Main Menu button and it will take you back to the Main Menu.

Math

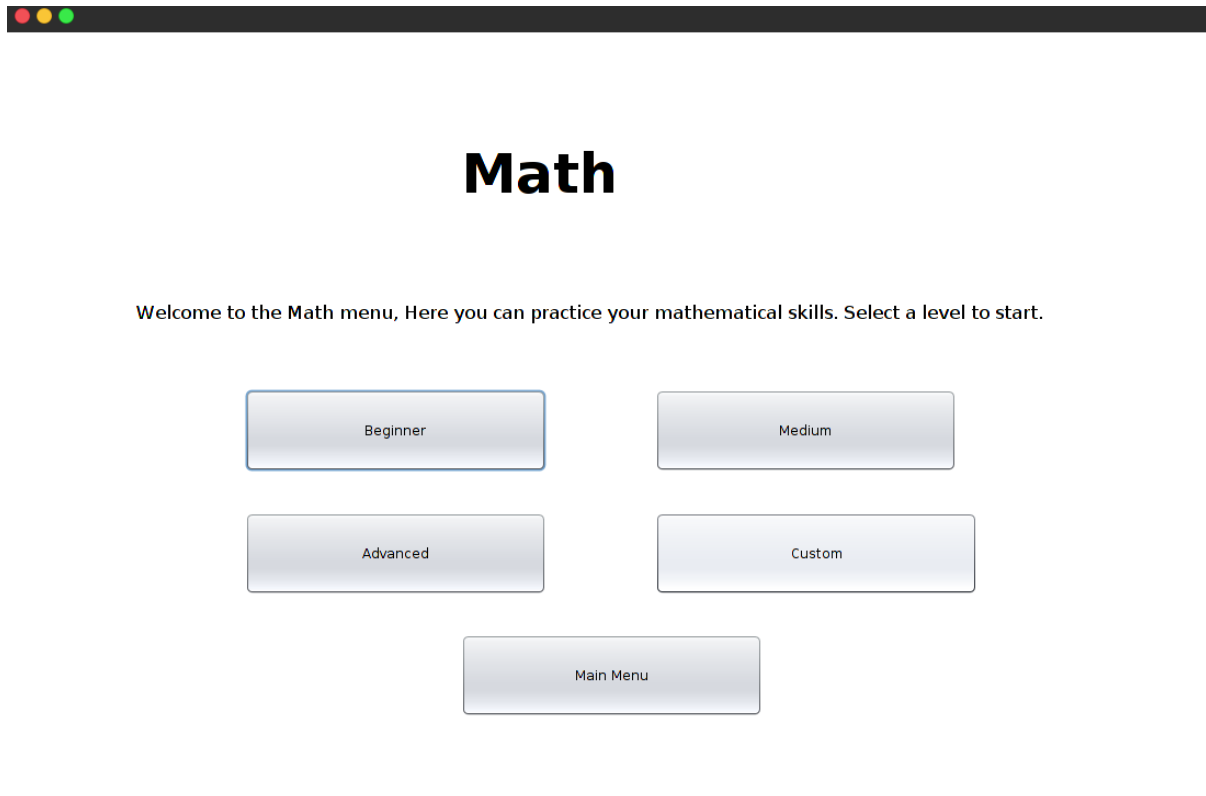


Figure 7 Math Menu

To access the Math mode, click on the Math button on the Main Menu. (see figure 1)

This will open a challenging level where users are tested on their Maori pronunciation for answers to math problems. Firstly, it will open the math menu and you will need to select which difficulty level you want to play in. In Math mode, there are 4 different levels:

Accessing Beginner Math Level

1. Beginner – Clicking the Beginner button on the Math Menu will begin the beginner math level. A screen will be shown explaining what level you're on. Click Start to begin the level. In this level equations will be displayed involving numbers from 1 to 20. The equations only involve addition and subtraction. (see figure 7) Therefore, the maximum number for an answer

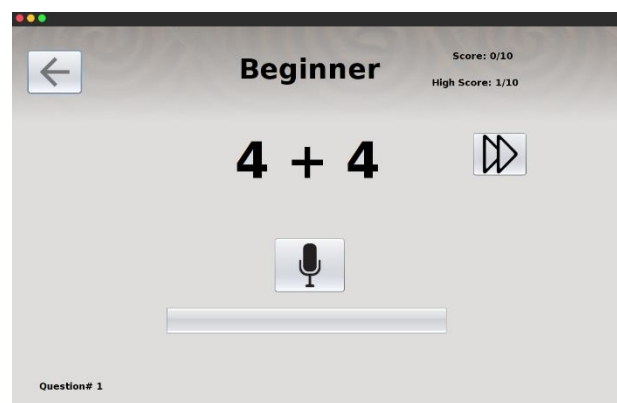


Figure 8 Beginner Math level preview

to an equation would be 40 (for the equation: $20+20$).

Accessing Medium Math Level

2. Medium – Clicking the Medium button on the Math Menu will begin the medium math level. A screen will be shown explaining what level you're on. Click Start to begin the level. In this level equations will be displayed involving numbers from 1 to 50. The equations involve addition, subtraction and multiplication operation.

Accessing Advanced Math Level

3. Advanced – Clicking the Advanced button on the Math Menu will begin the advanced math level. A screen will be shown explaining what level you're on. Click Start to begin the level. In this level equations will be displayed involving numbers from 1 to 99. The equations involve all operations i.e. addition, subtraction, multiplication and division.
4. Custom

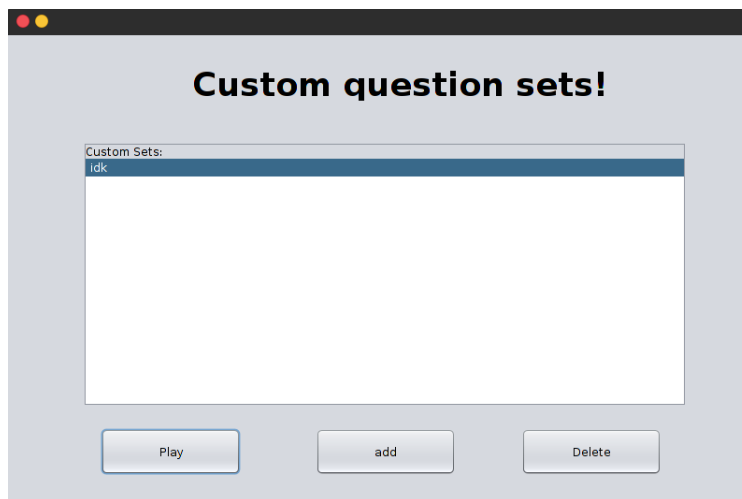


Figure 9 Custom Math Panel

Accessing Custom Math Panel

Click on the Custom button from the Math Menu to access the Custom Math Panel. (see figure 8) This will bring you to a screen which shows a list of all the custom questions made before.

Creating your question set

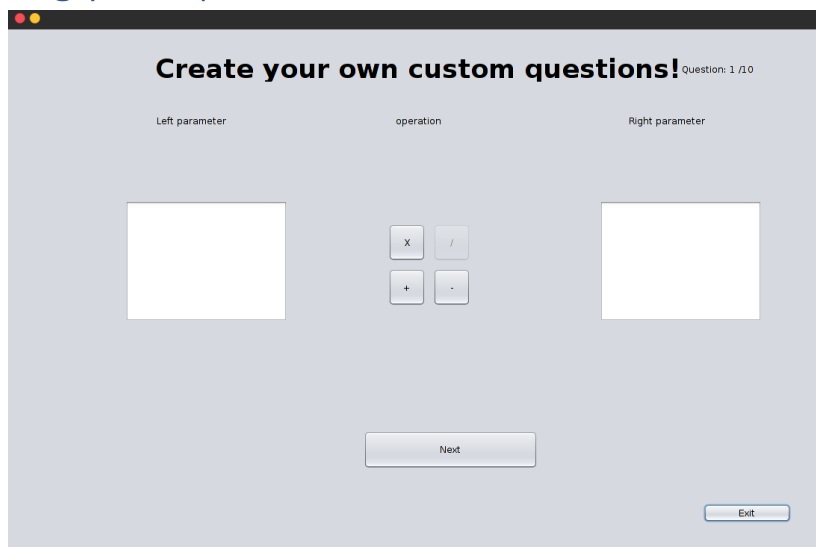


Figure 10 Custom Creation Panel

To make your own custom questions set click Add. You will show up to a screen which would ask for the name of your question set. Fill in the name in the text box and click Continue. This will bring you to a screen with 2 text boxes and clickable operation symbols in between them. (see figure 9) Enter a number 1 to 99 in the first text box. Select an operation by clicking on any one of them. Clicking on another operation will select the last clicked operation. Enter a number from 1 to 99 in the second text box. Make sure the answer to the equation is also a number from 1 to 99. Click Next once you're happy with the equation. Repeat the same process for all 10 questions.

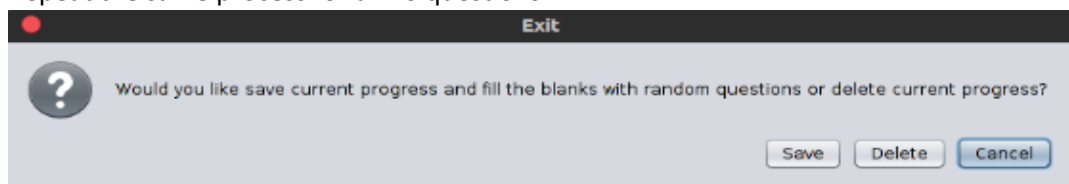


Figure 11 Option to save your custom questions and generate randomly for remaining

Alternatively, you can click Exit and a dialog box will appear (see figure 10) which would ask if you would like to generate random questions for the rest of the questions for your question set or delete all your progress.

Playing your question set

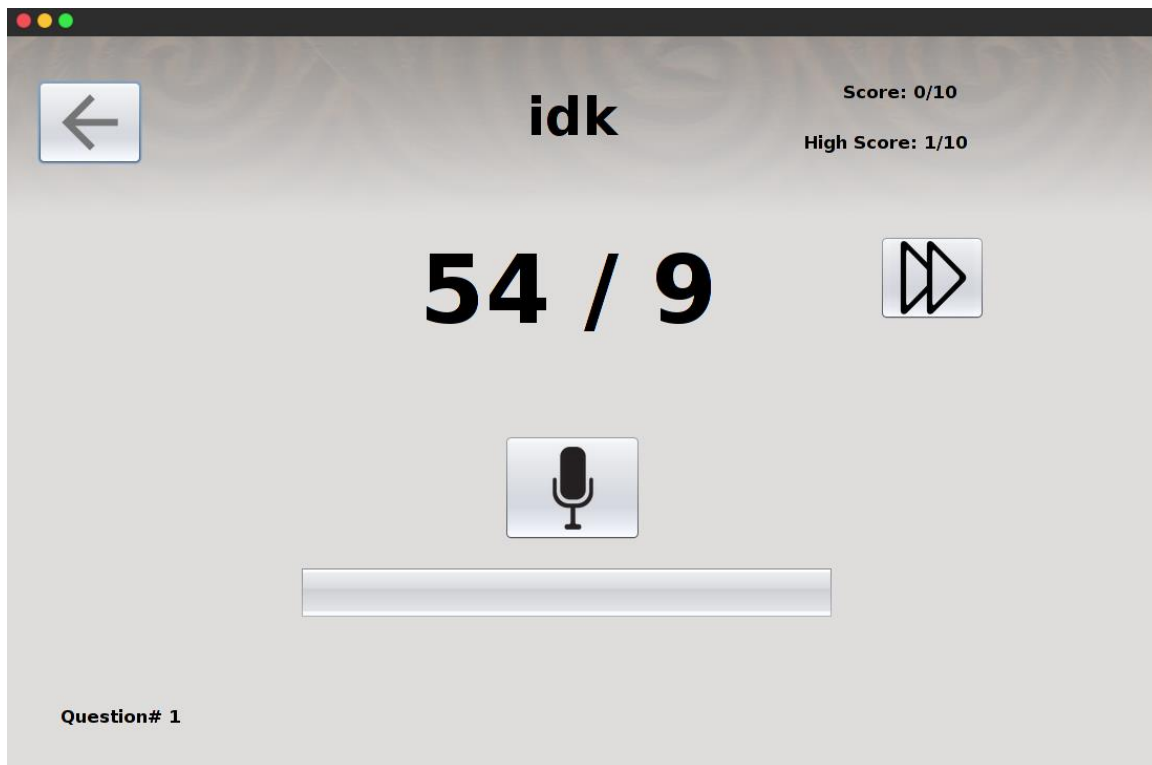


Figure 12 Preview of a custom level

To play your question set as a level, you need to select your question set name from the list in custom questions panel (see figure 8). After you select your question set name, click on play. It will take you to a screen which explains the level with button called Start. Press Start to begin. Your custom level will start. (see figure 11)

Deleting your question set

To play your question set as a level, you need to select your question set name from the list in custom questions panel (see figure 8). After you select your question set name, click on delete. It will prompt a confirmation saying, "Are you sure you want to delete?" Press Yes to confirm deletion of that particular question set.

Statistics

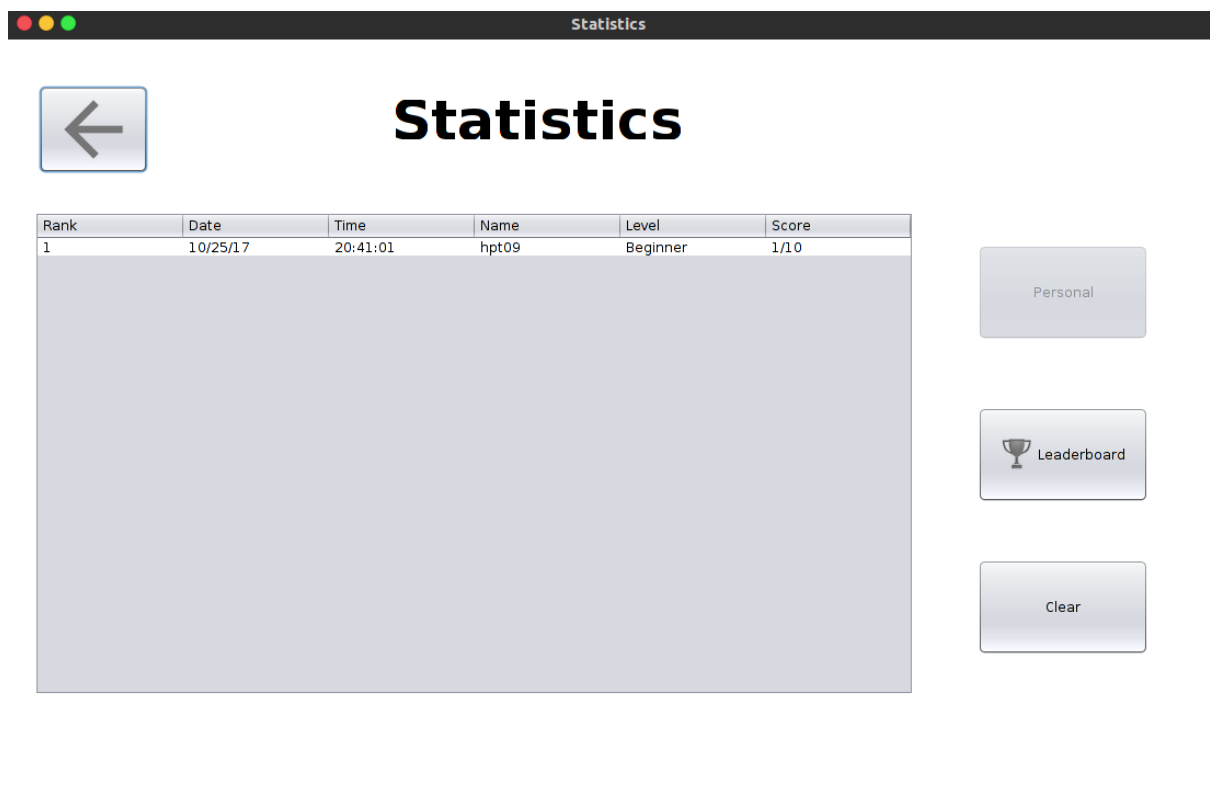


Figure 13 Statistic Panel showing only personal statistics

Checking past scores

To see the statistics, you can click on the Statistics button on the Main Menu.

Clicking the Statistics button will open a screen which will display a table for all your personal scores and levels that you played it on. The statistics will show the date, time, level name and the score you achieved out of 10 for all the rounds you have played. If you are logged in, your username will also show in statistics where as if you didn't log in, it will display all the scores played as anonymous.

Clearing your statistics

To clear your personal statistics from the statistics panel, click on the Clear button on the statistics screen on the right side of the table. This will immediately clear all the personal statistics and show a blank table if you want a fresh start.

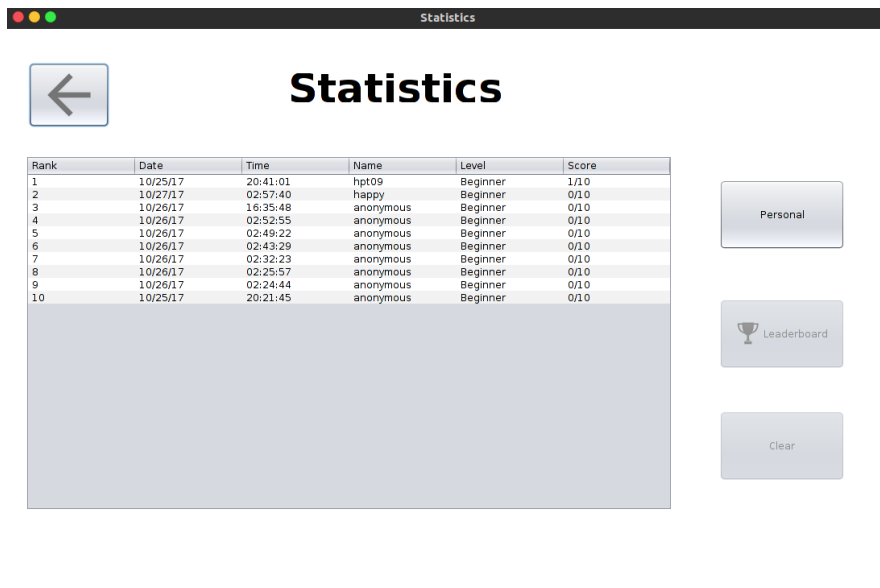


Figure 14 Leaderboard statistics showing different users including anonymous scores

Checking other users' scores

To see the leaderboard, press the Leaderboard button the statistics screen. This will now show all the users' scores and will be ranked from the best scores to the least. To switch back to viewing only your score, click on Personal button and the view will be switched to showing just your personal scores.

Help

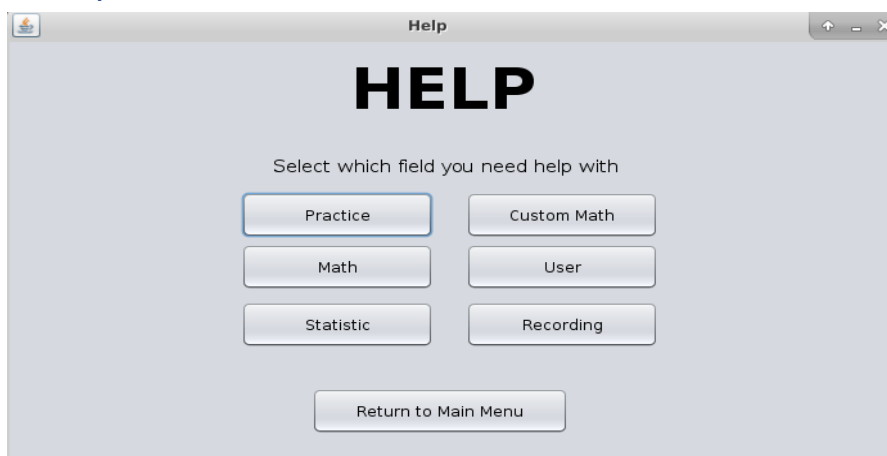


Figure 15 Help Menu

How to access help

To access the help menu, click on the question mark button on the top left screen of the main menu. (see figure 1)

How to get help with anything

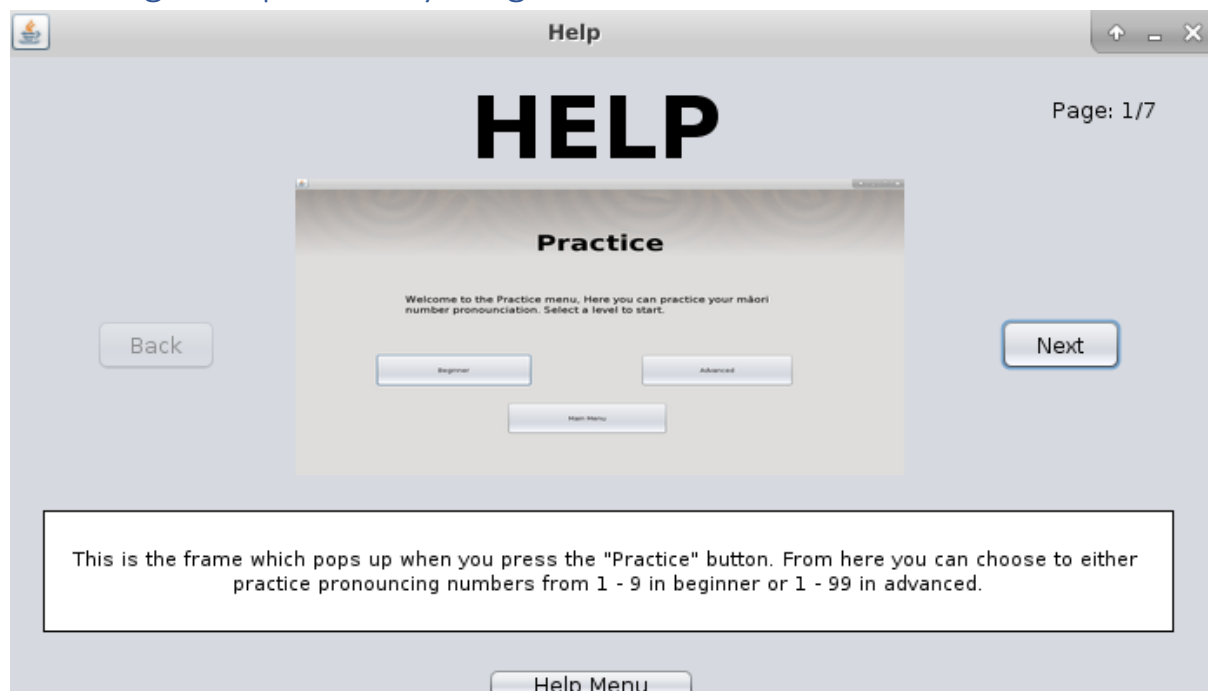


Figure 16 Practice help

To get help with any particular feature with this app, open the help menu (see above). Click on the button with the name of the feature you need help with (see figure 15). You will be brought to the a screen that looks like figure 16. You will be displayed with screenshots of a screen from the application with the explanation of what it should be doing. You can click next and there would be different screens which almost simulates a screen diagram. If there is a next screen, next button would be enabled otherwise it will get disabled. Same goes for the back button. Therefore, this detailed help screen works like a digital user manual.