Hello! I Am Watson!

Welcome to the Watson user guide! Watson is a helpful *desktop application* that helps school teachers track the data of their students. It can handle student particulars, sort students, handle grades and more!

Can I use Watson?

Watson is a desktop application that supports Apple, Windows and Linux operating systems. As long as you have a computer, you can run Watson!

Using This Guide

This guide covers all of Watson's features and how to use them. If you are unsure of how to use a feature or find help about a problem you might be facing, you can refer to this guide.

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Quick Start

- 1. Ensure you have Java 11 or above installed in your Computer (Not sure how? Check out this guide).
- 2. Download the latest version of Watson from here. The file you want is called Watson.jar.
- 3. Locate the downloaded file. Often, this would be your computer's Downloads folder.
- 4. On your computer's Desktop, create a new folder called Watson , then drag and drop Watson.jar from your Downloads folder into the Watson folder.
- 5. Double-click on Watson.jar to start the application.

Watson: The Basics

The Login Page

When you open Watson, you will be greeted with the login page, which looks like this:

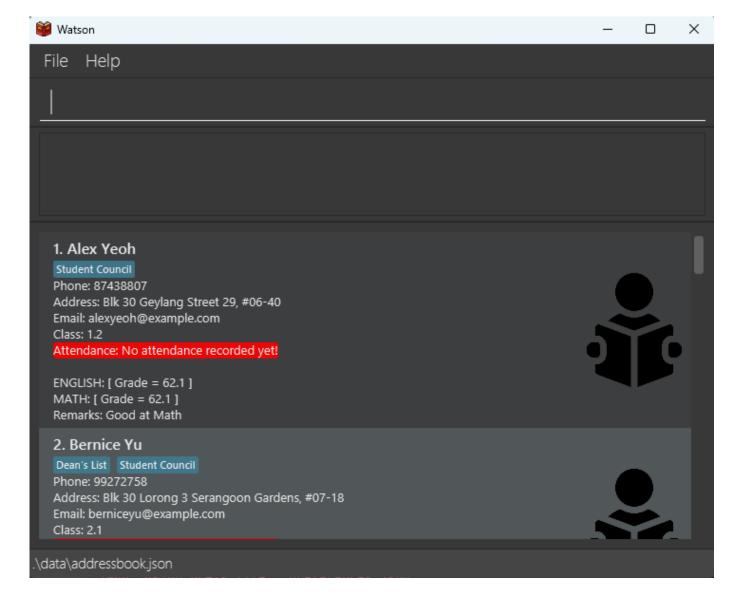


The login page is where you can log into Watson. To log in, type your login details into their respective boxes, then click the "Login" button below.

:exclamation: Notice that for testing purposes, the login details are written in red below the Login button. To log in, simply type "admin" in both username and password boxes, then click the "Login" button below.

The Main Page

After logging in, you will be greeted with the main page, which looks like this:

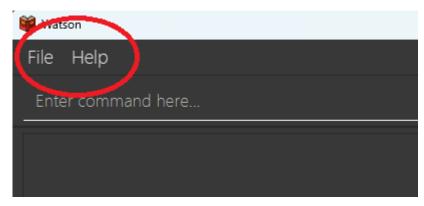


This looks quite complicated! But don't worry, we'll go through each part of the main page one by one.

You can use the following table to navigate through the components in the main page:

- The Menu Bar
 - The File tab
 - The Help tab
- The Command Box
- The Results Display
- · The Student Card

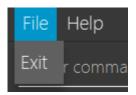
The Menu Bar



The menu bar is circled in red above

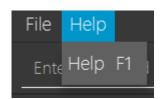
The menu bar is located at the top of the main page. It contains the following options:

The File tab



Clicking on the File tab will open a dropdown menu with the "Exit" option. Clicking on the "Exit" option will close the application.

The Help tab



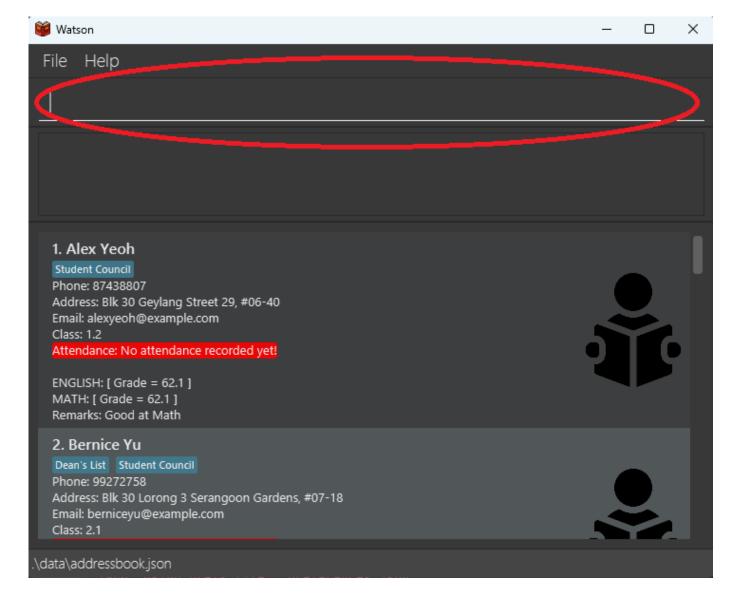
Clicking on the Help tab will open a dropdown menu with the "Help" option. Clicking on the "Help" option will open a help window that looks like this:



The "Copy URL" button will copy the link to the user guide, which can be pasted in your browser to open the online user guide.

:bulb: You can also open the help window by pressing the "F1" key on your keyboard!

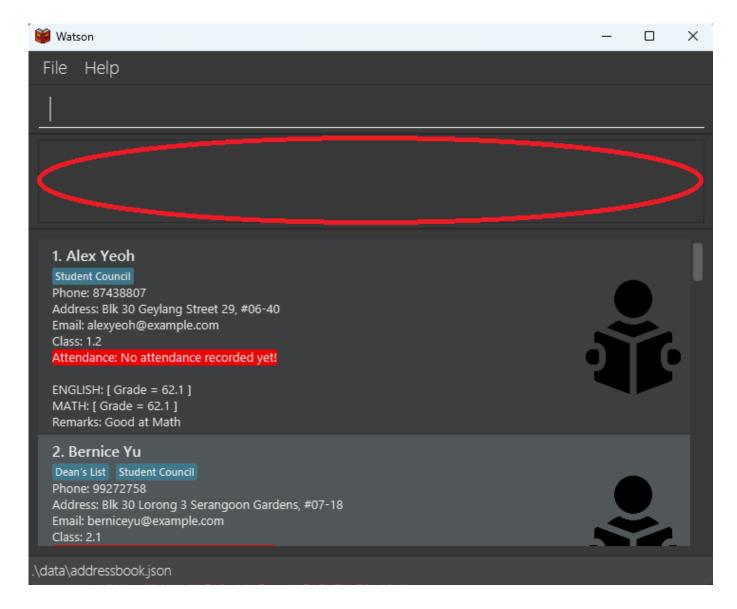
The Command Box



The command box (circled in red above) is where you can type in commands to Watson. After you type in your desired command, press the "Enter" key on your keyboard to tell Watson to perform the action.

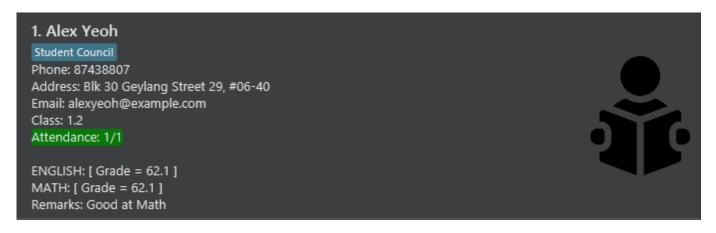
:bulb: Commands are special sequences of words that Watson can understand. They are used to perform actions with Watson.

The Results Display



The results display (circled in red above) is where Watson provides feedback after the entering of commands. If a command is executed successfully, a success message will be shown. If a command is not successfully executed, an error message will be shown and a help message may also be present to help you correct the error.

The Student Card



Each student is represented by a card that looks like the image above. From top to bottom, the card contains the following details:

Name (Alex Yeoh)

The name of the student. Notice that there is a "1." before the name; this represents the student's *index*. You will use this number in certain commands such as edit and delete.

Tags ("Student Council")

A student can have one, multiple or no tags. Tags are a good way to represent special roles a student might have (in this case, Alex is a member of the Student Council).

Phone Number (87438807)

The phone number of the student.

Address (Blk 30 Geylang Street 29, #06-40)

The address of the student.

Email (alexyeoh@example.com)

The email address of the student.

Class (1.2)

The class of the student. Watson supports many formats for classes, such as "1.2", "1A" and more.

Attendance (1/1)

The attendance of the student. This is represented in the form "number/number", where the first number represents the number of classes the student has attended, while the second number represents the total number of classes that have taken place.

Subjects (English, Math)

The subjects that the student is taking. Each subject is represented in its own line, and contains information about the student's grades for that subject. "ENGLISH: [Grade = 62.1]" means that the student has obtained 62.1% of the maximum grade possible for English so far.

For example, if the student has taken 1 test that has a weightage of 30% of the subject's entire grade, and scored 100% for that test, then the number shown in the application would be 30% of 100%, or 30%.

Remarks (Good at Math)

Remarks are a good way to keep track of a student's strengths and weaknesses. A student can have multiple remarks.

A Brief Guide to Commands

The Command Structure

Commands are the main way you can interact with Watson. You can type commands into the command box to tell Watson to perform actions.

Commands are made of a *command word* and *arguments*. The command word is the first word you type into the command box, and it tells Watson what action to perform.

For example, if you type add into the command box, Watson will know that you want to add a student.

The arguments are the rest of the words you type into the command box, and are usually made up of different parameters.

Think of the command structure as ordering a sandwich. The command word is the type of bread you want, while the parameters are the ingredients you want.

Let's break down an example command:

add n/John Doe p/98765432

add

The command word. This tells Watson that you want to add a student.

n/John Doe

The name parameter. This tells Watson that the name of the student is "John Doe".

p/98765432

The phone number parameter. This tells Watson that the phone number of the student is "98765432".

Important Notes

Commands have some special features that you should be aware of!

Words in UPPER CASE are the inputs to be supplied by the user.

For example, in $\ \, \text{add} \ \, \text{n/NAME}$, you will give your own value for $\ \, \text{NAME}$. An example would be $\ \, \text{add} \ \, \text{n/John}$ Doe .

Items in square brackets are optional.

For example, TAG in n/NAME [t/TAG] can be excluded. You can match the format with either n/John Doe t/friend or n/John Doe .

Items with ... after them can be used any number of times, including zero times.

For example, [t/TAG]... can be ignored (used 0 times), t/friend (used 1 time), t/friend t/family (used 2 times) etc.

Parameters can be in any order.

For example, if the command specifies <code>n/NAME p/PHONE_NUMBER</code> , <code>p/PHONE_NUMBER n/NAME</code> is also acceptable.

Repeated parameters will be ignored.

Only the last occurrence of the repeated parameter will be taken.

For example, if you specify n/Alice n/Bob, only n/Bob will be taken by Watson.

Handling Student Particulars

Watson's main capabilities are to keep track of students' particulars, such as their name, phone number, email address, etc. With Watson, you can move away from cumbersome pen-and-paper systems and keep track of your student's data far more easily.

Watson currently supports four features regarding student particulars:

- · Adding a student
- · Editing a student
- Deleting a student
- · Adding a remark to a student

Adding a student

You can add a student to Watson by using the add command.

Command Word: add

Compulsory Parameters: n/NAME , p/PHONE , e/EMAIL , a/ADDRESS , c/CLASS

Optional Parameters: [rem/REMARK]..., [t/TAG]...

Parameter Information

- None of the parameters can be blank.
- NAME should only contain alphanumeric characters and spaces.
- PHONE should only contain numbers, and it should be at least 3 digits long.
- EMAIL should be a valid email address.
- · CLASS should only contain numbers, letters and the decimal point.

Examples

add n/Johnson Doe p/98765432 e/johnson@gmail.com a/2 Sengkang Avenue c/1A t/Student Council add n/Amy Lee a/Changi Airport p/87878787 e/amy@outlook.com c/1.4 rem/Good at Math

Step-By-Step Example

Let's use add n/Johnson Doe p/98765432 e/johnson@gmail.com a/2 Sengkang Avenue c/1A t/Student Council and see how the process of adding a Student works!

- 1. Type in the command add followed by the parameters, then press Enter on your keyboard. You should see that a Student Card has been created for "Johnson" at the end of the list in Watson, with the parameters added as details below his name.
- 2. The Results Display should also show a success message saying that Johnson Doe has been added into Watson.

Troubleshooting

Problem: I typed in the command, but Watson says that the command is invalid!

Solution: Check your command format! The proper command format including samples should have been shown in the results display section below the command box.

Problem: I typed in the command, but Watson says that the student already exists?

Solution: Ensure that the student that you want to add does not share the same *name*, *phone number* or *email address* as another student in the application.

Editing a student

You can edit a student's particulars by using the edit command. The edit command supports the editing of the following particulars:

- Name
- · Phone number
- · Email address
- Address
- Class
- Remarks
- Tags

Multiple fields can be edited with a single edit command.

Command Word: edit

Compulsory Parameters: INDEX , AT LEAST ONE of the Optional Parameters

Optional Parameters: [n/NAME] , [p/PHONE] , [e/EMAIL] , [a/ADDRESS] , [c/CLASS , [rem/REMARK]... , [t/TAG]...

Parameter Information

- · None of the parameters can be blank.
- INDEX is the number of the student that you want to edit. This number is shown next to the student's name.
- NAME should only contain alphanumeric characters and spaces.
- PHONE should only contain numbers, and it should be at least 3 digits long.
- EMAIL should be a valid email address.
- CLASS should only contain numbers, letters and the decimal point.

Examples

```
edit 1 n/John Doe p/98765432
edit 2 t/Financial Assistance
```

Step-By-Step Example

Let's use edit 2 t/Financial Assistance and see how the editing process works!

- 1. Type in the command edit followed by the parameters, then press Enter on your keyboard. You should see that the Student Card for the second student in the list has been updated with the new tag.
- 2. The Results Display should also show a success message saying that the second student has been edited.

2. Bernice Yu

Dean's List Student Council

Phone: 99272758

Address: Blk 30 Lorong 3 Serangoon Gardens, #07-18

Email: berniceyu@example.com

Class: 2.1

Attendance: No attendance recorded yet!

ENGLISH: [Grade = 73.00] MATH: [Grade = 75.33]

Remarks: Friendly

2. Bernice Yu

Financial Assistance

Phone: 99272758

Address: Blk 30 Lorong 3 Serangoon Gardens, #07-18

Email: berniceyu@example.com

Class: 2.1

Attendance: No attendance recorded yet!

ENGLISH: [Grade = 73.00] MATH: [Grade = 75.33]

Remarks: Friendly

On the left: before editing, on the right: after editing

:exclamation: Using the `[rem/REMARK]` and/or `[t/TAG]` parameters will OVERWRITE any other remarks and/or tags that the student has!

Troubleshooting

Problem: I typed in the command, but Watson says that the student index provided is invalid!

Solution: The number specified by the INDEX parameter does not have a corresponding student! Ensure that you have typed in the correct number of the student that you want to edit.

Deleting a student

You may delete the entry for a particular student with the delete command. Note that this action is irreversible!

Command Word: delete

Compulsory Parameters: INDEX

Parameter Information

• INDEX is the number of the student that you want to delete. This number is shown next to the student's name.

Examples

delete 1

Step-By-Step Example

Let's use delete 1 and see how the deleting process works!

- 1. Type in the command <code>delete</code> followed by the parameters, then press <code>Enter</code> on your keyboard. You should see that the Student Card for the first student in the list has been deleted from Watson.
- 2. The Results Display should also show a success message saying that the first student has been deleted.

Troubleshooting

Problem: I typed in the command, but Watson says that the student index provided is invalid!

Solution: The number specified by the INDEX parameter does not have a corresponding student! Ensure that you have typed in the correct number of the student that you want to edit.

Adding a remark to a student

You can add a remark to a student with the remark command.

Command Word: remark

Compulsory Parameters: INDEX , REMARK

Parameter Information

- · None of the parameters can be blank.
- INDEX is the number of the student that you want to add a remark to. This number is shown next to the student's name.
- REMARK is the remark that you want to add to the student.

Examples

```
remark 1 Good at Math
remark 2 Enjoys playing football
```

Step-By-Step Example

Let's use remark 2 Enjoys playing football and see how the add remark process works!

- 1. Type in the command remark followed by the parameters, then press Enter on your keyboard. You should see that the Student Card for the second student in the list has been updated with an additional remark "Enjoys playing football".
- 2. The Results Display should also show a success message saying that the remark has been added for the second student.

Troubleshooting

Problem: I typed in the command, but Watson says that the student index provided is invalid!

Solution: The number specified by the INDEX parameter does not have a corresponding student! Ensure that you have typed in the correct number of the student that you want to edit.

Handling Grades

Watson allows you to keep track of your students' grades in a simple and intuitive manner. Watson also features a novel prediction system that allows you to predict a student's grade for a future assessment.

Watson currently supports two features regarding student grades:

- · Grading your students
- · Editing a student

Grading your Students

Watson's grading system allows you to grade all your students at once for any assessment.

Command Word: grade

```
Compulsory Parameters: subject_ , assessmentName_ , assessmentTotalScore_ ,
assessmentWeightage , assessmentDifficulty
```

Parameter Information

- This command has a special parameter format, using underscores (" ") instead of prefixes ("n/") .
- There should be **no spaces** between parameters.
- The parameters have to be in the **exact order** as shown above.
- subject_ is the subject that the assessment belongs to. It must be in CAPITAL LETTERS. If no students take the subject, an error message will be shown.
- assessmentName_ is the name of the assessment. This name should be unique for the subject, and can
 only consist of alphabets and numbers. Spaces are NOT allowed.
- assessmentTotalScore_ is the total score of the assessment. This should be a positive whole number (no decimals!).
- assessmentWeightage_ is the weightage of the assessment. This should be a decimal number between 0 and 1 (e.g. 0.5). This is the percentage of the total grade that this assessment contributes to; so 0.5 would represent 50%.
- assessmentDifficulty is the difficulty of the assessment. This should be a decimal number between 0 and 5 (e.g. 3.5). The difficulty of the assessment should be a rough estimate (according to you!) of how difficult the assessment is.

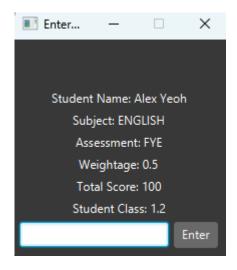
Examples

```
grade MATH_Quiz1_10_0.5_3.5
grade ENGLISH FYE 100 0.5 4.5
```

Step-By-Step Example

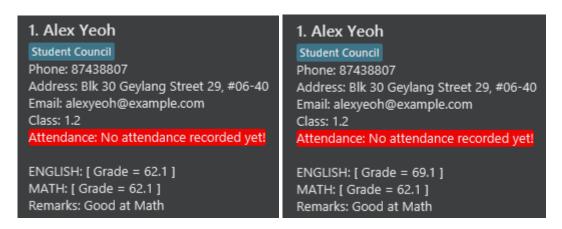
Let's use grade ENGLISH_FYE_100_0.5_4.5 and see how the grading process works!

1. Type in the command grade followed by the parameters. You should see the following screen:



Observe that there is a text box at the bottom of the window, next to which is a button labelled Enter.

- 2. Type in the grade that the student obtained for the assessment. The window will now show the details of the next student to be marked. Continue typing in marks until the window closes.
- 3. Once the window closes, you will observe that the grades of the students marked will be updated.



On the left: before grading, on the right: after grading

Troubleshooting

Problem: I typed in the command, but Watson says that the student index provided is invalid!

Solution: The number specified by the INDEX parameter does not have a corresponding student! Ensure that you have typed in the correct number of the student that you want to edit.

Predicting a Student's grade

Watson's prediction system allows you to predict a student's grade for a future assessment. Watson follows the following steps to predict a student's grade:

1. Calculate the percentage of classes attended by the student. Let's call this the student's learning rating.

For each of the student's previous assessments, perform the following procedure:

1.1. Take the difficulty of the assessment, then apply the following formula:

1/(difficulty x learning rating)

Let's call this number the difficulty bonus.

- 1.2. Add the **difficulty bonus** to the student's grade for the assessment. We call this their **normalized score**.
 - 2. Take the average of the student's **normalized scores** for all their previous assessments, then add the difficulty of the assessment to predict. This is the final prediction!

Command Word: predict

Compulsory Parameters: n/NAME , s/SUBJECT , diff/DIFFICULTY ,

Parameter Information

- · None of the parameters can be blank.
- The n/NAME parameter should match **EXACTLY** to the student to be predicted.
- The student should be studying the subject to be predicted.
- The diff/DIFFICULTY parameter should be a decimal number between 0 and 5 (e.g. 3.5).

Examples

predict n/Alex Yeoh s/ENGLISH diff/4.0
predict n/Bernice Yu s/MATH diff/3.5

Step-By-Step Example

Let's use predict n/Alex Yeoh s/ENGLISH diff/4.0 and see how the prediction process works!

- 1. Type in the command $\mbox{predict}$ followed by the parameters, then \mbox{press} \mbox{Enter} .
- 2. You should see the following screen:



This prediction means that Alex is likely to get about 62 percent for their next English assessment.

Problem: I typed in the command, but Watson says that the student can't be found!

Solution: Make sure that you've typed in the student's name correctly. The name is case-sensitive!

Handling Attendance

Watson allows you to mark attendance for your students and keep track of them easily.

Watson currently has one feature regarding student attendance:

· Marking attendance for your Students

Marking attendance for your Students

Watson's mark attendance command allows you to mark attendance for all your students in a class for a particular day in a single command.

Command Word: markAtt

Compulsory Parameters: d/DATE , c/CLASS , ind/INDEX NUMBERS OF EVERYONE PRESENT

Parameter Information

- All parameters cannot be blank.
- INDEX NUMBERS refer to the number displayed beside each student's name in Watson.
- Multiple index numbers can be added after the prefix "ind/".
- If all students from the class are absent, type '0' for the "INDEX NUMBERS" field, ie "markAtt d/DATE c/CLASS ind/0".

Examples

```
markAtt d/5/6/2022 c/1.2 ind/5
markAtt d/7/11/2022 c/1.2 ind/2 3 5 8 9 10
```

Step-By-Step Example

Let's use markAtt d/7/11/2022 c/1.2 ind/2 3 5 8 9 10 and see how the attendance process works!

- 1. Type in the command markAtt followed by the parameters, then press Enter on your keyboard.
- 2. You should see in the results display section below the command box that attendance for the index numbers specified in class 1.2 have been marked as present, and the remaining students have been marked as absent.

3. Individual attendance for each student should have been updated too.

Troubleshooting

Problem: I typed in the command, but Watson says that the command format is invalid!

Solution: Check your command format! The proper command format including samples should have been shown in the results display section below the command box.

Utility Features

Watson has a few utility features that can make handling your students easier, including:

- · Sorting Students
- · Finding a Student
- · Viewing all Students
- · Clearing the list of Students

Sorting Students

Watson's sorting system allows you to sort your students based of their grades for a given subject.

Command Word: sort

Compulsory Parameters: asc OR desc , s/SUBJECT

Parameter Information

- The asc parameter sorts the students in ascending order, while the desc parameter sorts the students in descending order.
- The s/SUBJECT parameter should be the subject to be sorted by.

Examples

sort asc s/ENGLISH sort desc s/MATH

Step-By-Step Example

- 1. Type in the command <code>sort asc s/ENGLISH</code> , then press <code>Enter</code> . Note that <code>ENGLISH</code> does not need to be capitalized.
- 2. You should see the following screen:

1. Alex Yeoh

Student Council

Phone: 87438807

Address: Blk 30 Geylang Street 29, #06-40

Email: alexyeoh@example.com

Class: 1.2

Attendance: No attendance recorded yet!

ENGLISH: [Grade = 63.3] MATH: [Grade = 68.7] Remarks: Good at Math

2. Bernice Yu

Dean's List Student Council

Phone: 99272758

Address: Blk 30 Lorong 3 Serangoon Gardens, #07-18

Email: berniceyu@example.com

Class: 2.1

Attendance: No attendance recorded yet!

ENGLISH: [Grade = 62.0] MATH: [Grade = 57.3] Remarks: Friendly

3. Charlotte Oliveiro

Phone: 93210283

Address: Blk 11 Ang Mo Kio Street 74, #11-04

Email: charlotte@example.com

Class: 3.6

Attendance: No attendance recorded yet!

ENGLISH: [Grade = 72.0] MATH: [Grade = 67.7]

Remarks:

4. David Li

Phone: 91031282

Address: Blk 436 Serangoon Gardens Street 26, #16-43

Email: lidavid@example.com

Class: 4.2

Attendance: No attendance recorded yet!

ENGLISH: [Grade = 48.3] MATH: [Grade = 70.3]

1. David Li

Phone: 91031282

Address: Blk 436 Serangoon Gardens Street 26, #16-43

Email: lidavid@example.com

Class: 4.2

Attendance: No attendance recorded yet!

ENGLISH: [Grade = 48.3] MATH: [Grade = 70.3] Remarks: Good at English

2. Irfan Ibrahim

Dean's List Financial Aid

Phone: 92492021

Address: Blk 47 Tampines Street 20, #17-35

Email: irfan@example.com

Class: 2.6

Attendance: No attendance recorded yet!

ENGLISH: [Grade = 53.3] MATH: [Grade = 57.3] Remarks: Introverted

3. Bernice Yu

Dean's List Student Council

Phone: 99272758

Address: Blk 30 Lorong 3 Serangoon Gardens, #07-18

Email: berniceyu@example.com

Class: 2.1

Attendance: No attendance recorded yet!

ENGLISH: [Grade = 62.0] MATH: [Grade = 57.3] Remarks: Friendly

4. Alex Yeoh

Student Council

Phone: 87438807

Address: Blk 30 Geylang Street 29, #06-40

Email: alexyeoh@example.com

Class: 1.2

Attendance: No attendance recorded yet!

ENGLISH: [Grade = 63.3]

Troubleshooting

Problem: I typed in the command, but Watson says that the student can't be found!

Solution: Make sure that you've typed in the student's name correctly. The name is case-sensitive!

Finding a Student

Watson's find system allows you to find a student based on their name, class or a subject.

Command Word: find

Compulsory Parameters: AT LEAST ONE OF n/NAME OR c/CLASS OR s/SUBJECT

Parameter Information

- You may put use multiple parameters to search for a student, but NOT zero.
- The parameters work independently; for example, if you search for the name Alex Yeoh and the class 4A , ALL students with the name Alex Yeoh AND the class 4A will be displayed.

Examples

find n/Alex Yeoh

find n/Alex c/4A

find n/Alex s/ENGLISH

Step-By-Step Example

We will use the command find n/Alex c/2.1 to search for students.

- 1. Type in the command find n/Alex c/2.1, then press Enter.
- 2. You should observe that two students have been found: Alex Yeoh (whose name matches the search term "Alex"), and Bernice Yu (who is in class 2.1).
- 3. To get back to the main list, type list in the command box, then press Enter.

Troubleshooting

Problem: I typed in the command, but Watson says that the command has an invalid format!

Solution: Make sure that you've not left any parameters blank! Blank parameters will cause Watson to show an error.

Viewing all Students

You can easily navigate back to the full student list with the list command.

Command Word: list

Examples

list

Clearing the list of Students

You can clear the list of students with the clear command. Note that this is irreversible!

Command Word: clear

Examples

clear

Getting Help

If you need help, you can type <code>help</code> in the command box, then press <code>Enter</code> . A pop-up window will appear with a link that you can copy and paste into your browser. The link will bring you to this guide!

Command Word: help

Examples

help

Glossary

• Operating System: The software that runs on your computer.