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# **CoachEra User Manual**

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## I. User

In this section, we will provide the steps for you, the learner, to interact with the CoachEra application that we deployed.

In order to use the application, you must follow the steps below to download and install the application on your Android device from the Google Play Store.

1. Open Google Play Store on your Android device.
2. Search “CoachEra” into the search bar.
3. Press the “Install” button on the screen. Once you see the application titled CoachEra in the application menu, you can begin using it!

When opening the app, you will be presented with a welcome message and an option to select your chatbot coach and select the language that you would like to interact with the Chatbot. You will also see a pop-up window that asks you whether or not you want to receive notifications for our app. If you choose “yes”, you will receive notifications from our app regularly to remind you of your learning tasks.

Once you have selected your preferences about your chatbot coach, you will be headed straight to the application. Now, you can begin learning!

You will be directed to a chatbot screen, where the chatbot coach will introduce the system and will give brief instructions for how you can interact with it. This page where you will be able to directly interact with the chatbot coach is the ‘Chat’ module. The banner on the left of the application allows you to switch modules from the currently selected ‘Chat’ module. The other two modules are the ‘Dashboard’ and the ‘Frequently Asked Questions’ modules. The purposes of these modules can be found in the following table.

Module	Purpose
Chat	Chat with chatbot to set up your course and tasks, and report your progress through answering chatbot’s questions.
Dashboard	View your current learning progress through a star system and a progress circle and previous accomplishments.
FAQ	View a list of anticipated questions regarding how to use the application and how it can help you as a learner, along with their corresponding answers.

Table 1: CoachEra System Modules + Purpose

## A. The Chat Module

In this module, you interacted directly with our chatbot. When you first open the app or complete a course, it will greet you and ask you what course you are taking. You should enter your course name, and it will then let you enter 1-5 required tasks you plan to complete for the week. This information that you just entered will show up in the dashboard as detailed in the section below.

There are two types of tasks - (1) required tasks and (2) extra tasks. Required tasks are those entered by you, the user, at the beginning of each week (reset after the end of Every week), and extra tasks, which you can complete to earn a star for a day, but not to complete the progress of the required tasks. If you complete a required task, you will earn 1 star and will see that that task on the Dashboard page will be marked as complete, and the progress percentage indicator will update. If you complete an extra task, you will earn 1 star, but will not see any change in the progress percentage indicator, since they did not complete a required task.

After setting up your course and plan information, the chatbot will ask you about your progress in this course by giving you an option of “completed a course” and “completed a task”. If you choose the former option, you will be prompted to fill out an embedded Qualtrics survey. If, otherwise, you choose the latter option, the chatbot will follow up by letting you choose which one of the tasks that you set up have you completed. And your choice will be reflected in the dashboard by showing that task is completed under “Your plan”. The chatbot will also follow up with you by updating you on how many stars you have earned.

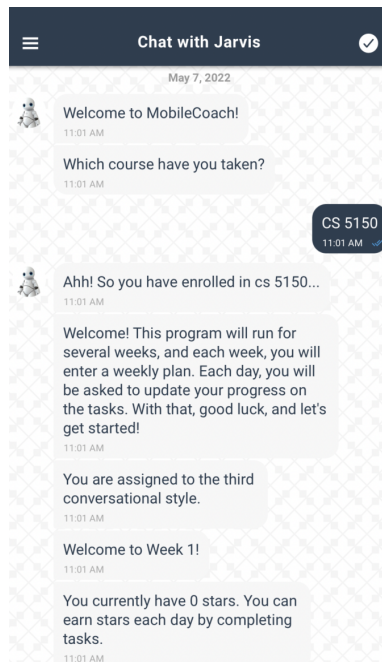


Figure 1: CoachEra System Chat Module

## B. The Dashboard Module

As described in the table above, the Dashboard module tracks your progress that is attained by interacting with the chatbot. The Dashboard module consists of four key components: (1) a star rating system, (2) a progress indicator, (3) a weekly task list, and (4) past accomplishments.

### (B.1) The Star Rating System

The star rating system functions as follows: you, the user, earn a star for completing a particular task for *each day*. This task can be either a required or an extra task. Hence, you can earn a maximum of 7 stars in a week. The only situation you can earn less than 7 stars is when there is at least one day where you have not reported finishing some kind of task or the entire course. And, when one week (7 days) is over, the number of stars earned resets, and the next week starts, and the process above repeats.



Figure 1. Star System Visualization

### (B.2) The Progress Indicator

As mentioned before, you must enter at least one task and no more than 5 tasks at the beginning of each week. Each day, you are asked whether you would like to mark the status of any task as completed.

The progress indicator measures the percentage of *required* tasks completed for the current week. For example, if you enter 4 required tasks, and currently mark 2 tasks as completed, the progress indicator will show 50% (with half of the progress bar full), since you have completed half of the required tasks you entered at the beginning of the week.

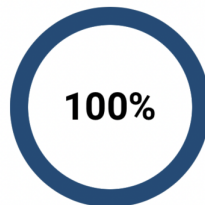


Figure 2: Progress Indicator

The progress indicator should not be confused with the star system, as they both measure separate metrics. The progress indicator measures the proportion of *required* weekly tasks completed, whereas the star visualization measures the number of tasks completed in a week, regardless of whether they are required or extra tasks.

### **(B.3) Weekly Task List**

The weekly task list displays the specific *required* tasks that you have entered at the beginning of the current week, along with their completion status. A completion status can either be 'Complete' or 'Incomplete', which is enclosed in brackets to the right of the task name. You can change the completion status of your required weekly tasks through the Chat module (when they are interacting with the chatbot coach), by indicating which required tasks you would like to update as completed. As a new week is entered, this weekly task list is cleared, and is then populated once you enter a new set of tasks for the new week.

#### **Your Plan**

study for exam [Complete]  
prepare for presentation [Complete]

Figure 3: Weekly Task List

### **(B.4) Past Accomplishments**

The number of stars earned in the previous week as well as the maximum number of stars earned in any week is retained in memory, and is displayed by the Dashboard under the "Past Accomplishments" section.

#### **Your Past Accomplishments**

Last week: 1 stars  
Highest: 1 stars

Figure 4: Past Accomplishments

## **C. The FAQ Module**

As described in the table above, the FAQ module serves the purpose of providing you useful information in order to understand the reason you are using this application and how you can make best use of the features of the application.

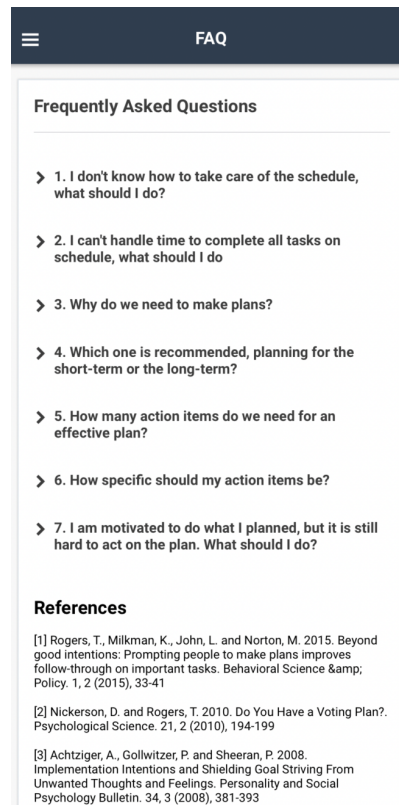


Figure 5: CoachEra System FAQ Module

## II. Researcher

In this section, we will provide the steps for you, the researcher, to interact with the CoachEra application that we deployed. We have extended the design of the initial state of the system such that researchers and developers have to make minimal changes to the codebase if their intention is to only modify the logic of the conversational flow. Modifying conversational flows can be entirely performed using MC Web Designer, a web platform that researchers can access if they would like to view or modify the current logic of the conversational flows.

An *intervention* in MC Web Designer is a set of conversation flows. Different interventions represent different interactions of the chatbot with the user. The application that we have handed over is connected to a particular intervention on the MC Web Designer platform,

named **prototype**. In the following table, we present key MC Web Designer terminologies and their definitions for you to be familiar with before you dive into the following sections.

Terminology	Definition
Conversational Flow	A progression of chatbot and user responses.
Intervention	A set of conversational flows that is connected to by the application.
Dialog	A subset of an intervention that is a part of a complete conversational flow.

Table 2: MC Web Designer Key Defined Terminologies

You will have access to the MC Web Designer interface, which will allow you to modify the current intervention we hand over or create a new one and link the application to it by modifying the `AppConfig.js` file in the MobileCoachApp codebase we hand over. In the following sections, we provide a walkthrough of the different components of MC Web Designer, as it is an important tool to understand to get a complete view of the workings of the system, and so that you have all the tools to easily achieve what you want.

## A. Interventions

In the Interventions tab, your set-up interventions will be found.

In this section, you will find the status of your “Intervention” or “Monitoring” statuses. These will either be “active” or “inactive.”

You can start editing an intervention by: clicking on a desired intervention row, then clicking ‘Edit.’

Interventions

Access Control

Account

Interventions

Back To List

Intervention "DHP-INTERVENTION-TOKO"

Basic Settings and Modules

Participants

Variables

Rules

Message Groups and Messages

Micro Dialogs

Access

Intervention is active! Click to deactivate.

Monitoring is active! Click to deactivate.

Assigned Sender Identification:

☐ Automatically finish unfinished screening surveys (with default values)
 ☐ Dashboard enabled

Dashboard template path:

Dashboard password expression: (no value set) Edit

Deepstream client access password: \*\*\*\*\* Edit

Monitoring starting days:
 ☒ Monday
 ☒ Tuesday
 ☒ Wednesday
 ☒ Thursday
 ☒ Friday
 ☒ Saturday
 ☒ Sunday

Interventions to involve in uniqueness checks:

DHP-INTERVENTION-21  
 DHP-INTERVENTION-22  
 DHP-INTERVENTION-23  
 DHP-INTERVENTION-24  
 DHP-INTERVENTION-25

DATE and TIME SIMULATOR (Handle with care!)

The current simulated date and time is: 04-Mar-2020 16:27:23 and fast forward mode status is: false

Jump ten MINUTES to the Future!

Jump one HOUR to the Future!

Jump one DAY to the Future!

Activate Fast Forward Mode

Deacti

## B. Basic Settings and Modules

You can simulate a test intervention by jumping ahead in time to the future. This is the “date and time simulator.”

You can also change the status (i.e. active, inactive) of your “Intervention” status or “Monitoring” status. In this section, you should Activate Monitoring to test anything in the app view, or Deactivate Monitoring to edit anything in your intervention.



Interventions

Access Control

Account

Interventions

INTERVENTION	INTERVENTION STATUS	MONITORING STATUS	ASSIGNED SENDER IDENTIFICATION
DHP-INTERVENTION-21	active	active	(not set)
DHP-INTERVENTION-22	active	active	(not set)
DHP-INTERVENTION-23	active	active	(not set)
DHP-INTERVENTION-24	active	inactive	(not set)
DHP-INTERVENTION-25	active	active	(not set)
DHP-INTERVENTION-TOKO	active	active	(not set)

New

Import

Export

Rename

Edit

Duplicate

Delete

Report

Results

Internationalization

Problems

## C. Participants Tab

A new participant is created every time the app is opened and connected to the server. This is recorded in the “Participants” tab, where you can edit the participants remotely and manage any special settings for them.

Interventions

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Interventions

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Intervention "DHP-INTERVENTION-TOKO"

Basic Settings and Modules

Participants

Variables

Rules

Message Groups and Messages

Micro Dialogs

Access

PARTICIPANT ID	PARTICIPANT NAME	LANGUAGE	GROUP	ORGANIZATION	ORGANIZ	CREATED	ASSIGNED SUR
5e5ea74fe03dd8000ae55a7f	MobileCoach Client User	English (en-GB)	(not set)			03-Mar-2020 18:51:59	(unknown)
5e5ea982e03dd8000ae55a92	MobileCoach Client User	English (en-GB)	(not set)			03-Mar-2020 19:01:22	(unknown)
5e5ea9c8e03dd8000ae55aa0	MobileCoach Client User	English (en-GB)	(not set)			03-Mar-2020 19:02:32	(unknown)
5e5ea9f8e03dd8000ae55ab1	MobileCoach Client User	English (en-GB)	(not set)			03-Mar-2020 19:03:20	(unknown)
5e5eaa26e03dd8000ae55ac2	MobileCoach Client User	English (en-GB)	(not set)			03-Mar-2020 19:04:06	(unknown)
5e5eaa72e03dd8000ae55ad5	MobileCoach Client User	English (en-GB)	(not set)			03-Mar-2020 19:07:30	(unknown)
5e5f64b4e03dd8000ae55b21	MobileCoach Client User	English (en-GB)	(not set)			04-Mar-2020 08:20:04	(unknown)
5e5fd41ee03dd8000ae55b41	MobileCoach Client User	English (en-GB)	(not set)			04-Mar-2020 16:15:26	(unknown)
5e5fd435e03dd8000ae55b56	MobileCoach Client User	English (en-GB)	(not set)			04-Mar-2020 16:15:49	(unknown)

Import

Export

Assign Group

Assign Organization

Assign Unit

Delete

Refresh

Switch Monitoring

Send Message

## D. Variables Tab

In this section, variables that have a global corrector are located in a table. Such variables that we could monitor could be: giving points to the user by logging in the app or using the app. When monitoring is inactive (deactivate it in basic settings and modules), you can create new variables.

Interventions

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Interventions

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Intervention "DHP-INTERVENTION-TOKO"

Basic Settings and Modules

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Rules

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Access

VARIABLE NAME	VARIABLE VALUE	PRIVACY SETTING	ACCESS SETTING
\$coach	0	private	internal

New

Rename

Switch Privacy

Switch Access

Edit

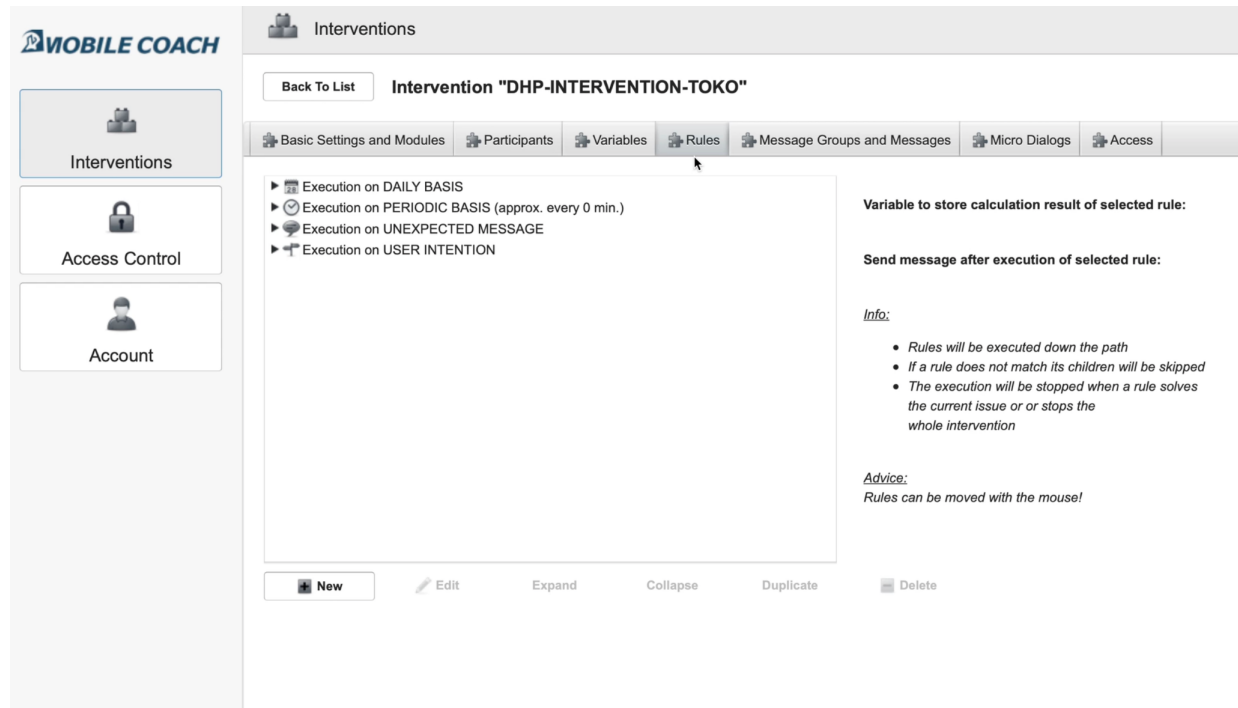
Delete

## E. Rules Tab

This is where all the intervention logic is located. You can define points of time or conditions should micro dialogs. be triggered. You can edit rules, duplicate, delete, or order the logic by expanding each section of the rules.

In this section, execution of the rules can be programmed on:

- A daily basis
- A periodic basis
- Encounter of an unexpected message
- User intention
  - i.e. Clicking on a value/content in the app, referencing a variable in the intention
- Linking a particular micro dialog



## F. Message Groups and Messages Tab

This section of MC Web Designer manages how to send text messages to users, and allows for grouping of users into different conversational flows. For instance, this may be useful when wanting to have different messages sent by the chatbot to different groups of users.

## G. Micro Dialogs Tab

In this section, we can create micro dialogs to be triggered in the application. These micro dialogs can be triggered by our rules determined in the "Rule" tab that we have defined.

We can create sub tabs of micro dialogs. Within the subsections of each micro dialog, we can edit, duplicate, delete, and create decision points and messages.

We can also create determinations of the dialogs, such as expecting answers by the user, or certain sequence of actions of the answer, or certain response dialogs.

## i. Create Decision Point

We can demonstrate creating a decision point by, for instance, making a rule always true. An example of this is jumping to a dialog message if true or false. This is helpful and useful with efficiently testing conversations with jump back decisions points.

To calculate values with decision point: first, define a point variable in the “Variables” tab. In the “Micro Dialog” tab, add the variable as a message. Then, use the decision point to determine adding of points to the defined point variable.

## ii. Other Useful Tips

- The 3-hyphen break (---) triggers a new speech bubble
- You can add an image embedded into the speech bubble by adding a file when opening the edit box of the message.

## H. How to Link Multiple Sessions

To link multiple sessions together, we first create a decision point after the first session that finishes the session. In the “Rules” tab, set intervention status to session-finish after the rules of session 1 are done. Also, in the “Rules” tab, create a rule that is executed daily that if session 1 is done, move onto session 2.

This process is repeated for any number of sessions desired. We can test multiple hours or days interventions by using "Jump x time into the future" in the "Basic settings and modules" tab.

## **I. How to Integrate Website/Video Clips into Micro Dialogs**

Within the micro dialog, input "show-web [url] [label of the button]." We can edit the message like any micro dialog. For instance, you can add answer options to the dialog, or a wait command (after the message shows up, but need to set "fastNode" in the "typingIndicator" module of the "AppConfig" to false).

## **J. How to Send Messages at a Specific Point in Time**

To send messages at a specific time, first define a Decision Point. For instance, if a goodbye dialog is triggered.

We also must define a variable (in the "Variable" tab) for times to trigger these events. Furthermore, in the "Micro Dialogs" tab, define answer options. Also, if a certain answer is selected, a certain next message is triggered, such as: if it is 9am, then mention a morning message, etc. In the "Rules" tab, define the trigger time based on execution of previous sessions, etc.