



IBM Watson Assistant Maintenance Documentation

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Introduction

Hello Human Resources team. This is a documentation of how to use the IBM Watson Chat-bot. There are various sections with topics that cover how to improve and test the Chat-bot. Use the navigation bar on the left to maneuver through the document. Good luck!

Getting Started

In order to access and begin updating the chatbot, you will need to set up an IBM Cloud Account and navigate to the Watson Assistant page. This section details everything you need to get going with IBM Watson Assistant. (Note: Creating an IBM Cloud Account is free, we created the chatbot using an IBM Watson Assistant Plus account, to learn more about IBM Watson's price plans visit this page <https://www.ibm.com/cloud/watson-assistant/pricing/>)

1. Create an IBM Cloud Account on the [IBM Cloud website](#).
2. Navigate to the [IBM Cloud Catalog website](#).
3. Click the navigation menu on the top left, and select **Resource list**.
4. Open the drop-down menu called **Services and software**, and select the **Duke HRIC Chat-bot Watson Assistant**.
5. Click **Launch Watson Assistant** to get started!

The screenshot shows the IBM Cloud Catalog interface. On the left, there is a sidebar with icons for Assistants, Functions, and Data. The main area displays two entries:

- Duke HRIC Chat-bot**: An entry for a Watson Assistant designed for integration into the Duke HRIC system. It includes a description, a "Create assistant" button, and sections for Skills (2), Integrations (2), and a detailed view.
- My first assistant**: A placeholder entry for a Watson Assistant, described as being built for exploration and learning. It includes a description, a Skills (1) section, and an Integrations (2) section.

Exporting a Knowledge Base

Each chatbot is populated with intents, entities, and dialog nodes that make up the knowledge base. Being able to export your chatbot's knowledge base is useful for situations in which you

want to switch IBM skills (move your knowledge base from one IBM Watson Assistant to another IBM Watson Assistant) or back-up your work. This section outlines the steps to export your chatbot's knowledge base as a JSON file.

1. From the IBM Watson Assistant Plus home page, click the skills icon in the left sidebar.

The screenshot shows the IBM Watson Assistant Plus interface. In the top navigation bar, there is a 'Skills' icon. Below the header, the title 'Duke HRIC Chat-bot' is displayed with a subtitle: 'IBM Watson Chat-bot designed for integration into the Duke Human Resources Center website.' To the right of the title are 'Preview' and 'More' buttons. The main content area is divided into two sections: 'Dialog' and 'Search'. The 'Dialog' section contains an 'About HRIC' skill card with details: LANGUAGE English (US), TRAINED DATA 203 Intents | 60 Entities | 306 Dialog nodes, VERSION draft, DESCRIPTION: ..., and VERSION CREATED: Jul 6, 2021 8:00 AM PDT. Below it is a 'LINKED ASSISTANTS (1): Duke HRIC Chat-bot' section. The 'Search' section contains an 'HR Website Search' skill card with details: CREATED: Jul 22, 2021 2:21 PM PDT, and below it is a 'LINKED ASSISTANTS (1): Duke HRIC Chat-bot' section. To the right, there is an 'Integrations' panel with a 'Web chat' card and a placeholder for adding more integrations.

2. On the **Skills** page, under the **About HRIC** skill, click the vertical ellipsis (:). A list appears.

The screenshot shows the 'Skills' page in the IBM Watson Assistant Plus interface. The 'Skills' icon is visible in the top navigation bar. The main content area lists several skills: 'About HRIC', 'HR Website Search', 'My first skill', and 'Summary Plan Document Search'. The 'About HRIC' skill card has a vertical ellipsis (:) icon to its right, which is expanded to show a context menu. The menu includes options like 'Edit', 'Delete', 'Share', and 'Download'. The 'About HRIC' skill card also displays its type (Dialog - English (US)), creation date (Jul 6, 2021 8:00 AM PDT), update date (Aug 3, 2021 2:15 PM PDT), and linked assistants (1: Duke HRIC Chat-bot).

3. Select **Download**. The knowledge base is downloaded in JSON format.

Skills

Skills contain the training to respond to your customer queries. Add skills to your assistant and then deploy to your channels.

Create skill

About HRIC

TYPE: Dialog – English (US)

CREATED: Jul 6, 2021 8:00 AM PDT

LINKED ASSISTANTS (1): Duke HRIC Chat-bot

Summary Plan Document Search

TYPE: Search

CREATED: Jul 7, 2021 6:50 AM PDT

HR Website Search

TYPE: Search

CREATED: Jul 22, 2021 2:21 PM PDT

LINKED ASSISTANTS (1): Duke HRIC Chat-bot

My first skill

TYPE: Dialog – English (US)

CREATED: Jul 6, 2021 7:52 AM PDT

UPDATED: Jul 26, 2021 11:04 AM PDT

LINKED ASSISTANTS (1): My first assistant

Importing a Knowledge Base

IBM gives you the option to import a preexisting knowledge base (formatted in JSON). This could be useful in situations where you may want to switch instances, go back to a previously saved chatbot instance, etc.

1. Navigate to the **Skills** page by clicking the skills icon in the top left corner. The **Skills** page appears.

← Assistants

RegistrarBot

Dialog

registrar

LANGUAGE English (US) TRAINED DATA 103 Intents | 20 Entities | 136 Dialog nodes VERSION draft DESCRIPTION: ...

VERSION CREATED: Jul 23, 2021 3:12 PM EDT

LINKED ASSISTANTS (1): RegistrarBot

Search

Turn any content into answers

- Create Q&A experiences in minutes
- Sync with websites and data sources for always up-to-date answers
- Handle even complex questions with inclusive, contextual responses

Add search skill

Watch a brief demonstration

Preview

Integrations

Web chat

Choose a channel to deploy your assistant. Add integration

2. Select **Create skill**.

IBM Watson Assistant Plus

Skills

Skills contain the training to respond to your customer queries. Add skills to your assistant and then deploy to your channels.

Create skill

example-skill	registrar	webhook-test
TYPE: Dialog — English (US)	TYPE: Dialog — English (US)	TYPE: Dialog — English (US)
CREATED: Jul 29, 2021 4:49 PM EDT	UPDATED: Jul 29, 2021 5:24 PM EDT	UPDATED: Jul 30, 2021 11:37 AM EDT
LINKED ASSISTANTS (1): RegistrarBot		

3. Choose **Dialog skill**, and click **Next**.

IBM Watson Assistant Plus

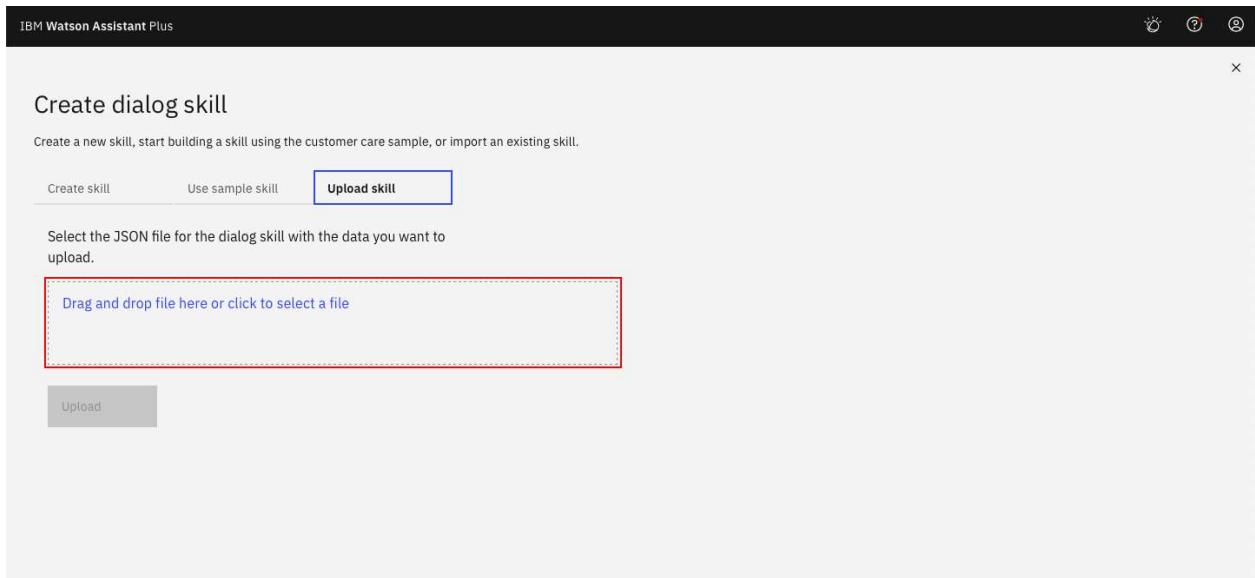
Create a skill

Skills can be combined to improve your assistant's capabilities. [Learn more](#)

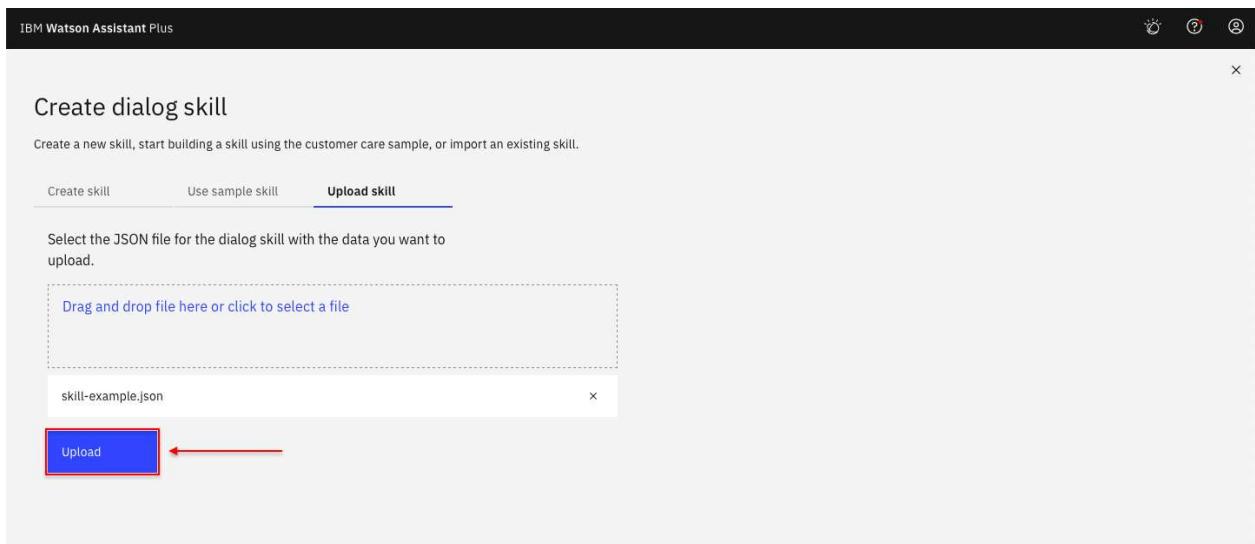
Actions skill Have an assistant ready to chat in less time. Compose step-by-step flows for any range of simple or complex conversations. Made so that anybody can build.	Dialog skill Dialog offers all the smarts, power, and flexibility you've come to trust. Select to keep building with the tools you know and love.	Search skill Create Q&A experiences in minutes. Sync with websites and data sources for always up-to-date answers. Handle even complex questions with inclusive, contextual responses.
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Next

4. In the next screen, click **Upload skill** and submit a JSON file using the file selector below.



5. After uploading your JSON file, click **Upload**, and you're all set!

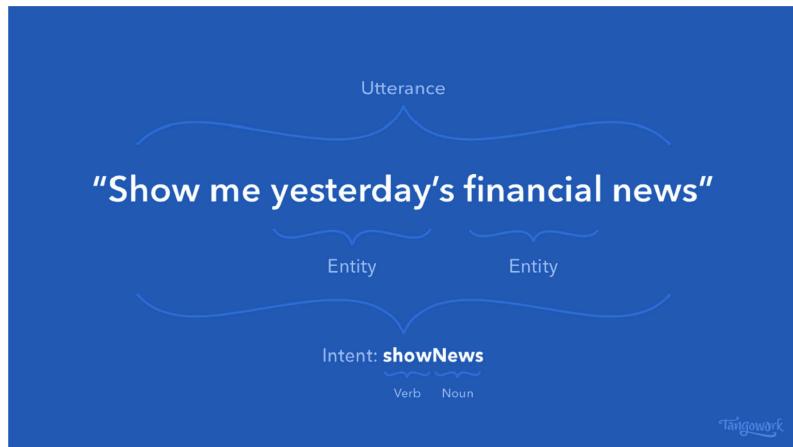


Adding Questions and Responses

In order to add a new question to the chatbot's dialog, you must first create a new **intent**. Then you can use your intent as a condition to add a **dialog node** to the dialog. This dialog node will process and return a response to a user that activates a particular intent.

Creating an Intent

An **intent** is the user's goal or purpose when conversing with the chatbot.



1. From the IBM Assistant's home page, click the desired assistant. A new screen will appear.

The screenshot shows the IBM Watson Assistant Plus interface. In the top left, there is a search bar with the placeholder "Search assistants" and a magnifying glass icon. Below the search bar, the title "IBM Watson Assistant Plus" is displayed. On the right side of the header, there are three small circular icons and a "More" options menu icon. The main content area is titled "Assistants". It contains a card for "RegistrarBot", which is highlighted with a red border. The card includes the following information: "RegistrarBot", "Skills (1) registrar", "Integrations (3)", and three small circular icons. There is also a "More" options menu icon at the bottom right of the card.

2. Click on your assistant. You will be taken to the main editing screen.

IBM Watson Assistant Plus

Assistants

RegistrarBot

Preview ▶

Dialog

registrar

LANGUAGE English (US) TRAINED DATA 103 Intents | 21 Entities | 140 Dialog nodes VERSION draft DESCRIPTION: ... VERSION CREATED: Jul 23, 2021 3:12 PM EDT

LINKED ASSISTANTS (1): RegistrarBot

Search

Turn any content into answers

- Create Q&A experiences in minutes
- Sync with websites and data sources for always up-to-date answers
- Handle even complex questions with inclusive, contextual responses

Add search skill

Watch a brief demonstration ⓘ

Integrations

Web chat - testing attempt 2

Web chat

Choose a channel to deploy your assistant. Add integration

IBM Watson Assistant Plus

registrar Version: Development

Save new version Try it

Intents

	Description	Modified ↑↓	Conflicts ↑↓	Examples ↑↓
<input type="checkbox"/>	Intents (103) ↑	11 days ago	5	
<input type="checkbox"/>	#access_dukehub	Can't get on DukeHub (as an alum)	6 days ago	4
<input type="checkbox"/>	#accidental_enroll_cost	Is there a fee to withdraw from summer class	6 days ago	2
<input type="checkbox"/>	#add_outside_class	Graduate student who wants to add outside course	7 days ago	8
<input type="checkbox"/>	#ask_prematriculation	Credit for college courses taken in high school	11 days ago	5
<input type="checkbox"/>	#ask_transfer_credit	Get credit from another university	11 days ago	2
<input type="checkbox"/>	#calculate_GPA	Show how GPA is calculated for each school	6 days ago	4
<input type="checkbox"/>	#canceled_class	A class disappeared from my schedule	11 days ago	5
<input type="checkbox"/>	#change_address	Change student address	6 days ago	4
<input type="checkbox"/>	#change_audit	Change grading basis to audit	11 days ago	5
<input type="checkbox"/>	#change_bio_info	Change general student bio info	6 days ago	4
<input type="checkbox"/>	#change_crosslist	Switch departments for a cross-listed class	11 days ago	5
<input type="checkbox"/>	#change_grad_date	Change student graduation date	6 days ago	4

Showing 1–100 of 103 intents

3. Click **Create Intent**. The **Create intent** screen appears.

The screenshot shows the IBM Watson Assistant Lite interface. On the left, there's a sidebar with options like Entities, Dialog, Options, Analytics, Versions, and Content Catalog, with 'Intents' selected. The main area displays a table of intents. The columns are labeled 'Intents (89) ↑', 'Description', 'Modified ↑', and 'Examples ↑'. A red box highlights the 'Create intent +' button in the top right corner of the table header. Below the table, it says 'Showing 1–89 of 89 intents' and has page navigation controls.

4. Fill in the **Intent Name** and **Description**, then click **Create Intent**. The intent editing page will appear.

Note: An intent name follows a `#verb_noun` naming convention. For example, an intent to register for a class would be `#register_class`.

The screenshot shows the 'Create intent' form. It has fields for 'Intent name' (with placeholder '#Type intent name here') and 'Description (optional)' (with placeholder 'Add a description to this intent'). To the right, there's a 'Recommended examples' section with a 'Plus' button and a note about user example recommendations. A red box highlights the 'Create intent' button at the bottom left of the form, and a red arrow points from the previous screenshot's 'Create intent +' button to this one.

5. Add unique examples of what a user might say to train the chatbot. (Recommend at least five).

IBM Watson Assistant Lite Upgrade

Last updated: 11 days ago

#register_class

Intent name
#register_class

Name your intent to match a customer's question or goal

Description (optional)
Explain how to register for a course

User example
Type a user example here
Add unique examples of what the user might say. (Pro tip: Add at least 5 unique examples to help Watson understand)

Add example

Recommended examples Plus

User example recommendations makes it easier to identify new phrasing for your intents. Watson Assistant will recommend new user examples. [Learn more](#)

Show recommendations

Annotate entities [What's this?](#)

User examples (5) ↑	Added ↓
<input type="checkbox"/> How do I register for classes	11 days ago
<input type="checkbox"/> How to register for a class	11 days ago

After creating your intent you can either make your question more specific by creating an **entity** or you can proceed to **Creating a Dialog Node** from your intent.

Creating an Entity

An **entity** is a specific keyword or phrase that the chatbot searches for. Before explaining how to create one, here is why entities are important. In our experience, **entities** have three major uses.

First, they are helpful for refining the user's intent to a more specific question. For example, we have an intent in chatbot called `#request_transcript`, which detects questions relating to transcript requests. If you want the bot to answer questions about how transcripts work with study abroad, rather than creating five examples of how that question would be worded, you can create an entity for study abroad. The study abroad entity, `@study_abroad`, detects the words "study abroad" within a question, so if the bot detects the `#request_transcript` intent and the `@study_abroad` entity simultaneously, it can deliver a more specific answer.

Second, they are instrumental in creating a **multi-turn dialog**. A **multi-turn dialog** (also called a multi-turn conversation) is created when the chatbot responds to a user's question with another question. This way, the chatbot can gather more information on what the user wants, and so that it can provide a tailored response. The **Creating a Multi-Turn Dialog Node** section explains how to do this in more detail, but entities play a vital role in that process.

Third, IBM Watson Assistant includes built-in entities called **System entities**, that which can recognize numerical inputs, such as dates and times. This could be useful for date-and-time related questions, particularly class registration windows., but as of this writing (August 2021), this feature has not been implemented.

Here's a quick guide on how to create an entity, do the following:

1. Click **Entities** in the left navigation, and select **My entities**.

The screenshot shows the IBM Watson Assistant Plus interface for a skill named "example-skill". The left sidebar has a tree view with "Intents" selected, and "Entities" and "My Entities" are highlighted with red boxes and arrows pointing to them. The main content area displays a table of intents. The table has columns for Intent ID (checkbox), Description, Modified (date), Conflicts (count), and Examples (count). There are 10 intents listed, all modified 4 days ago. The bottom of the table shows "Showing 1–10 of 10 intents".

	Description	Modified ↑	Conflicts ↑	Examples ↑
#General_About_You	Request generic personal attributes.	4 days ago	20	
#General_Agent_Capabilities	Request capabilities of the bot.	4 days ago	30	
#General_Connect_to_Agent	Request a human agent.	4 days ago	38	
#General_Ending	End the conversation.	4 days ago	37	
#General_Greetings	Greet the bot.	4 days ago	27	
#General_Human_or_Bot	Ask if speaking to a human or a bot.	4 days ago	12	
#General_Jokes	Request a joke.	4 days ago	17	
#General_Negative_Feedback	Express unfavorable feedback.	4 days ago	20	
#General_Positive_Feedback	Express positive sentiment or grati...	4 days ago	19	
#General_Security_Assurance	Express concerns about the securit...	4 days ago	26	

2. Click **Create entity**.

The screenshot shows the IBM Watson Assistant Plus interface. The top navigation bar includes the title "IBM Watson Assistant Plus", a save button, and three icons. Below the navigation is a sidebar with sections: "example-skill" (Version: Development), "Intents", "Entities" (selected), "My Entities" (highlighted in blue), "System Entities", "Dialog", "Options", "Analytics", "Versions", and "Content Catalog". The main content area has a circular icon with a network graph. A heading "What is an entity?" is followed by a paragraph explaining entities as nouns or keywords. It also mentions enabling pre-built system entities for common phrases like dates and numbers. At the bottom is a blue button labeled "Create entity" with a red arrow pointing to it, and a "Upload entities" link.

3. Name the entity, then click **Create entity**.

Note: Entities follow an @noun naming convention, where multiple words are separated by underscores ("_"). In this example, we are creating the study abroad entity discussed earlier.

The screenshot shows the "Create new entity" form. At the top is a back arrow and the title "Create new entity". Below is a "Entity name" input field containing "@study_abroad". A note below says "Name your entity to match the category of values that it will detect." At the bottom is a blue "Create entity" button with a red arrow pointing to it.

4. Under **values**, enterPut in a few examples of words the chatbot should detect under **values**. **Values** are different keywords that connote the same entity, and **synonyms** are words equal to a certain value, but different from other values. Since “study abroad” is a fairly unique phrase, a single value will suffice. For more generic intents, it’s better to include more values.

The screenshot shows the IBM Watson Assistant Plus interface. At the top, it says "IBM Watson Assistant Plus". Below that is a search bar with the placeholder "@study_abroad". To the right of the search bar are icons for download, copy, and search, followed by a "Try it" button. The main area is titled "Entity name" with the value "@study_abroad". A note says "Name your entity to match the category of values that it will detect." Below this are sections for "Value" and "Synonyms". The "Value" section has a text input "Type a value" and a dropdown "Synonyms". The "Synonyms" section has a text input "Type a synonym" and a "+" button. There are also "Add value" and "Recommend synonyms" buttons. Below these are tabs for "Dictionary (1)" and "Annotation (0)". The dictionary tab shows a table with one row. The row has a checkbox next to "Values (1) ↑", a column for "Type" (with "study abroad" listed), and a column for "Synonyms". The entry "study abroad" is highlighted with a red box.

Creating a Dialog Node

A **dialog node** is a node that understands and responds to a user's specific intent. Before creating a dialog node, make sure you've created the intent and/or entities you want your node to respond to (See *Creating an Intent* and *Creating an Entity* above).

You can add your new dialog node to an existing folder or create a new folder.

1. After creating the intent that corresponds to your user's question/goal, navigate to view your **Dialog**.

IBM Watson Assistant Lite Upgrade

registrar

Intents Add node Add child node Add folder

Entities

Dialog **Add node**

Options

Analytics

Versions

Content Catalog

Welcome welcome
1 Responses / 0 Context Set / Does not return

#General_Greetings
1 Responses / 0 Context Set / Does not return

Documents
6 Dialog nodes / Does not return

Grading and Exams
9 Dialog nodes / Does not return

Credit
⋮

2. Click **Add node to folder**.

IBM Watson Assistant Lite Upgrade

registrar

Intents Add node Add child node Add folder

Entities

Dialog **Add node**

Options

Analytics

Versions

Content Catalog

6 Dialog nodes / Does not return

Grading and Exams
9 Dialog nodes / Does not return

#change_audit
1 Responses / 0 Context Set / Return allowed

#change_passfail
1 Responses / 0 Context Set / Return allowed

#calculate_GPA
1 Responses / 0 Context Set / Return allowed

#find_honors
⋮

Add node to folder

Add node above

Add node below

Add folder

Move

Duplicate

Jump to

Delete

3. Under **If assistant recognizes** to set the intent that will activate this node's response. Then you can fill in the response that the chatbot will respond to the user with under **Assistant responds**. (In this case, we are returning a Text based response.)

The screenshot shows the IBM Watson Assistant Lite interface. On the left, the sidebar has sections for Intents, Entities, Dialog (which is selected), Options, Analytics, Versions, and Content Catalog. In the main area, under the 'Dialog' section, there is a list of nodes: 'ms', 'audit', 'passfail', 'am', and '_GPA'. A new node is being created, with the 'Add node' button highlighted. To the right, there is a configuration panel for the new node. It includes fields for 'Enter node name (optional)' containing '#move_exam', 'If assistant recognizes' (with '#move_exam' listed), and 'Assistant responds' (with a text box containing a response about exam petitions). The 'Text' field in the 'Assistant responds' section is highlighted with a red box.

4. IBM will automatically save your new node.
5. To preview this new response, click **Try It** (upper right).

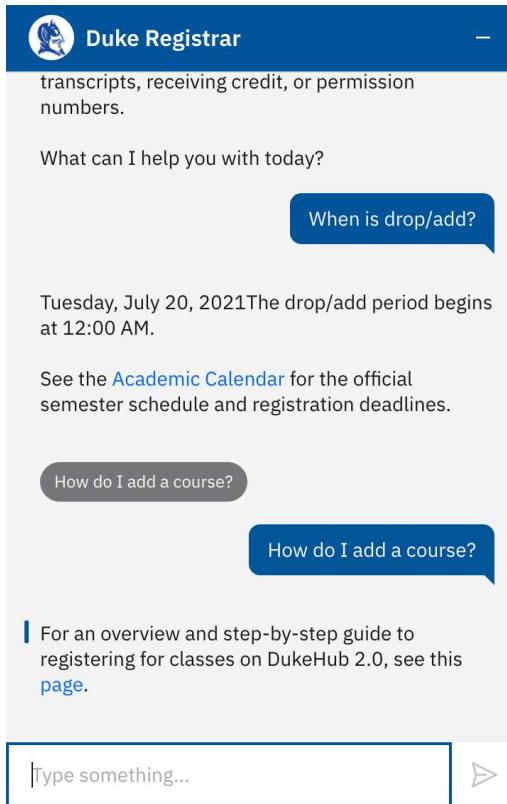
This screenshot shows the same interface after the new node has been added. The 'Add node' button is now grayed out. The list of nodes now includes '#move_exam' along with 'ms', 'audit', 'passfail', 'am', and '_GPA'. To the right, a preview window titled 'Try it out' shows a simulated conversation. The user says 'I want to change my final exam', and the bot responds with the same text from the 'Text' field in the configuration panel. The preview window also shows the 'Enter response variation' field and a message about using the up key for most recent responses.

Creating a Multi-Turn Dialog Node

A ‘turn’ in a conversation is marked by one back-and-forth interaction: the user “speaks” and the chatbot follows, or vice-versa.

A **multi-turn** conversation is a conversation in which the user is prompted with additional options or questions to better answer the user’s intent.

In the example below, after asking “When is drop/add?” the user is given the option to ask “How do I add a course?” a related question that might be relevant in this conversation.



To add existing questions as options to a bot's response such as in the example above, first you want to make sure you've **already created the dialog nodes** that correspond to each question/intent you want to use in your multi-turn conversation. (See *Creating a Dialog Node*, above).

1. Within the dialog node that you want the multi-turn option to appear, click **Add response type +**

The screenshot shows the IBM Watson Assistant Plus interface. On the left, there's a navigation sidebar with options like Intents, Entities, Dialog (which is selected), Options, Analytics, Versions, and Content Catalog. The main area displays a dialog tree under the 'Dialog' tab. A node labeled '#drop_add_date_start' is selected. To the right, the 'Assistant responds' section is visible, showing a dropdown menu set to 'Text'. Below it is a rich text editor containing a message about registration deadlines. At the bottom of the 'Assistant responds' section, there's a button labeled 'Add response type +'. A red arrow points to this button.

2. Click the dropdown menu to change the response type from **Text** to **Option**

This screenshot is similar to the previous one but shows the 'Text' dropdown menu open. The 'Option' option is highlighted with a red box and a red arrow pointing to it. The rest of the interface remains the same, showing the dialog tree and the rich text editor with the registration deadline message.

3. Click **Add Option +**

The screenshot shows the IBM Watson Assistant Plus interface. On the left, there's a sidebar with 'registrar' selected. The main area shows a tree structure of dialog nodes under 'Dialog'. One node, '#drop_add_date_start', is selected and expanded. On the right, there's a detailed view of this node. The 'List label' field contains 'Add option +'. The 'Value' field is empty. A red arrow points from the 'List label' field towards the 'Value' field.

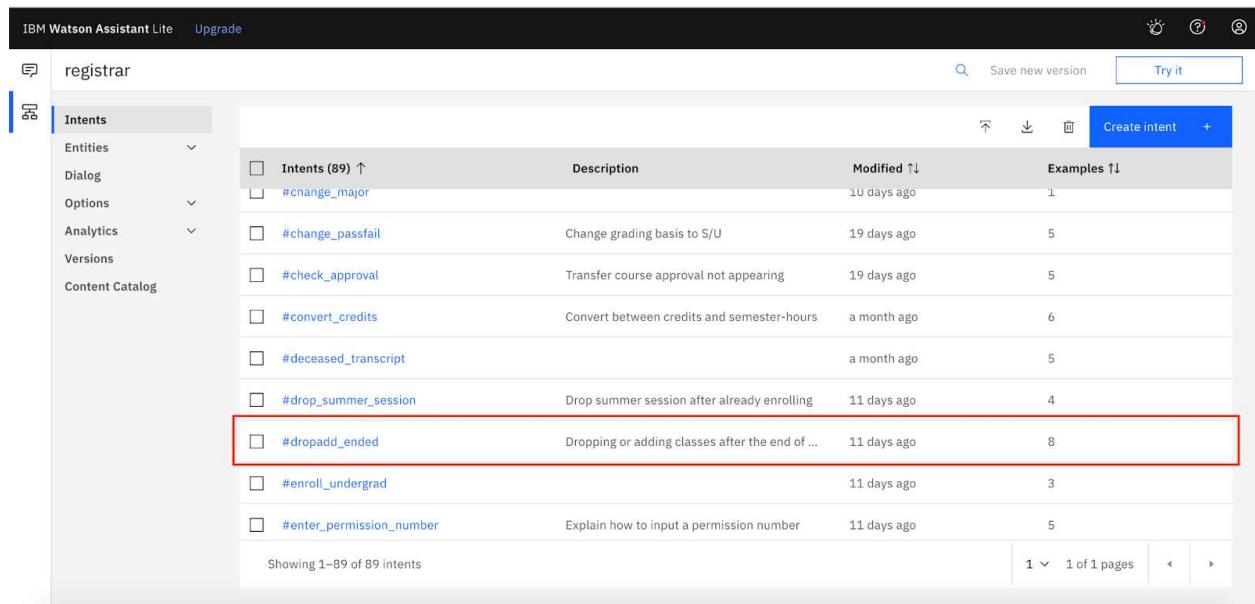
4. (Optional) Add a title or description. The **List label** will appear on the button that prompts the user.
5. Under **Value**, fill in the **intent** name that corresponds to the dialog node you want the button to link to.

The screenshot shows the same interface as before, but the '#drop_add_date_start' node is now fully configured. The 'List label' field contains 'How do I add a course?' and the 'Value' field contains '#register_class'. Both of these fields are highlighted with a red border.

Adding Alternative Phrases to Intents

In IBM, intents understand and process the user's questions. Thus, if you want to train the chatbot to handle alternative phrases or wording of a specific question, you want to find and edit the intent that handles that question.

1. Navigate to the specific intent that handles your condition.



The screenshot shows the IBM Watson Assistant Lite interface. The top navigation bar includes 'IBM Watson Assistant Lite' and 'Upgrade'. On the left, there's a sidebar with 'Entities', 'Dialog', 'Options', 'Analytics', 'Versions', and 'Content Catalog'. The main area is titled 'registrar' and shows a list of 'Intents'. A red box highlights the row for '#dropadd_ended'. The table columns are 'Intents (89) ↑', 'Description', 'Modified ↑↓', and 'Examples ↑↓'. The row for '#dropadd_ended' contains the text: 'Dropping or adding classes after the end of ...'.

Intents (89) ↑	Description	Modified ↑↓	Examples ↑↓
#change_major	Change grading basis to S/U	10 days ago	1
#change_passfail	Transfer course approval not appearing	19 days ago	5
#check_approval	Convert between credits and semester-hours	a month ago	6
#convert_credits		a month ago	5
#deceased_transcript			
#drop_summer_session	Drop summer session after already enrolling	11 days ago	4
#dropadd_ended	Dropping or adding classes after the end of ...	11 days ago	8
#enroll_undergrad		11 days ago	3
#enter_permission_number	Explain how to input a permission number	11 days ago	5

2. Fill in your alternative phrasing in **User example** and click **Add Example**. IBM will automatically save your new phrasing.

Intent name
#dropadd_ended

Name your intent to match a customer's question or goal

Description (optional)
Dropping or adding classes after the end of drop/add

User example
Type a user example here
Add unique examples of what the user might say. (Pro tip: Add at least 5 unique examples to help Watson understand)

Recommended examples Plus

User example recommendations makes it easier to identify new phrasing for your intents. Watson Assistant will recommend new user examples. [Learn more](#)

Show recommendations

Add example

Annotate entities What's this?

User examples (8) ↑

Can I drop a course after drop/add period is over? 11 days ago

Can I still add a course after drop/add? 11 days ago

Deleting a Question

Deleting a node from the dialog tree will remove that response from the chatbot's dialog.

1. Click : to delete a node from the dialog tree.

IBM Watson Assistant Lite Upgrade

Try it

registrar

Intents Entities Dialog Options Analytics Versions Content Catalog

Add node Add child node Add folder

Grading and Exams

9 Dialog nodes / Does not return

#change_audit

1 Responses / 0 Context Set / Return allowed

#change_passfail

1 Responses / 0 Context Set / Return allowed

#calculate_GPA

1 Responses / 0 Context Set / Return allowed

#find_honors

1 Responses / 0 Context Set / Return allowed

Enter node name (optional)

If assistant recognizes

#calculate_GPA

Assistant responds

Text

To see how GPA's are calculated, see this website.

Enter response variation

Response variations are set to **sequential**. Set to [random](#) | [multiline](#)

2. To delete the intent and entity that corresponds to that node, navigate to either one by clicking **Intents** or **Entities** in the left sidebar.

3. From both views you can select which intent or entity you want to delete before clicking on the trash icon to delete it.

1 item selected				
	Description	Modified ↑	Examples ↑	
<input type="checkbox"/> #access_dukehub	Can't get on DukeHub (as an alum)	a month ago	5	
<input type="checkbox"/> #accidental_enroll_cost	enroll cost after mistakenly enrolling for su...	2 days ago	5	
<input type="checkbox"/> #add_outside_class	Graduate student wanting to add class outsi...	2 days ago	2	
<input type="checkbox"/> #ask_prematriculation	Credit for college courses taken in high scho...	19 days ago	5	
<input type="checkbox"/> #ask_transfer_credit	Get credit from another university	a month ago	5	
<input checked="" type="checkbox"/> #calculate_GPA	Show how GPA is calculated for each school	19 days ago	5	
<input type="checkbox"/> #canceled_class	A class disappeared from my schedule	11 days ago	2	
<input type="checkbox"/> #change_address	Student wants to change address on file	2 days ago	4	

Changing the Chatbot's Theme

You can customize the color of the chat header, user message bubble, accent color and avatar image. To customize the chatbot, do the following:

1. Navigate to the Assistant's homepage and click **Web Chat** under **Integrations** on the right side of the screen.

The screenshot shows the IBM Watson Assistant Plus interface. On the left, the 'registrar' dialog is displayed, showing basic information like language (English (US)), trained data (103 intents, 20 entities, 136 dialog nodes), version (draft), and creation date (Jul 23, 2021 3:12 PM EDT). Below it, there's a section for linked assistants. On the right, the 'Integrations' sidebar is open, showing a list of available integrations. The 'Web chat' integration is highlighted with a red box and a red arrow pointing to it from the top-left. Below the integration list, there's a note: 'Choose a channel to deploy your assistant.' and a button 'Add integration'.

Note: The avatar image must be square (between 64 x 64px and 100 x 100px) and located at a public URL.

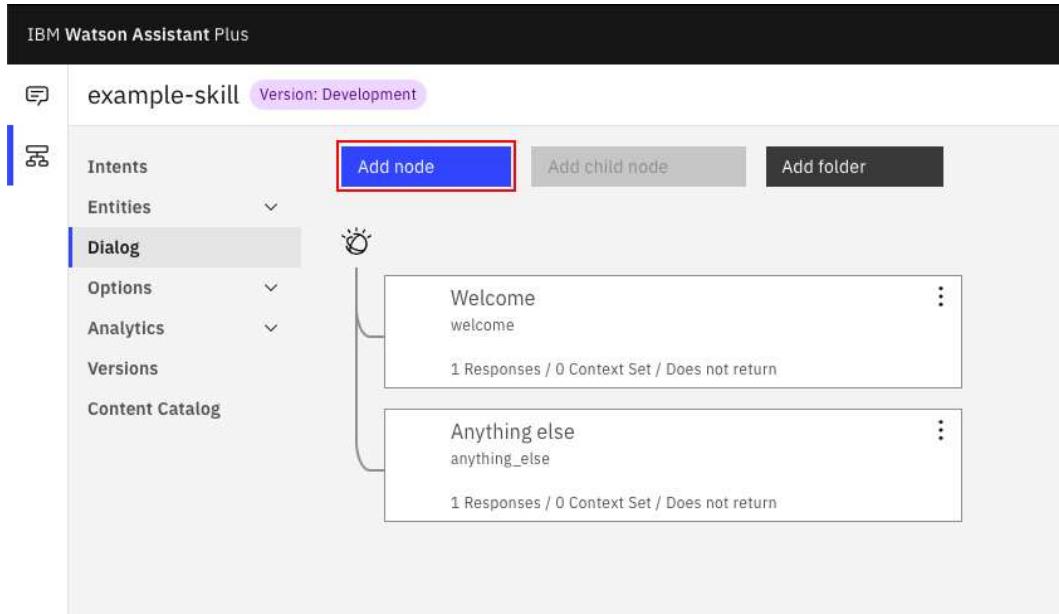
The screenshot shows the 'Web chat' configuration page. At the top, there's a navigation bar with tabs: Style, Home screen, Live agent, Suggestions, Security, and Embed. The 'Style' tab is selected. Below the tabs, there's a section titled 'Customize your chat UI' with a sub-section for 'Assistant's name as known by customers'. It shows a placeholder 'Duke Registrar' and color swatches for primary (#00539B), secondary (#00539B), and accent (#00539B) colors. To the right, there's a preview window for 'Duke Registrar' showing a blue bird logo, the name 'Duke Registrar', and a message: 'Hi! I'm a virtual assistant for the Duke Registrar. The registrar handles academic records and registration, so feel free to ask me about stuff like transcripts, receiving credit, or permission numbers.' There's also a 'Restart conversation' button and a watermark at the bottom left.

2. Click **Save and exit**.

Embedding Links

Hyperlinks can be embedded directly in the chatbot's response, using HTML.

1. Navigate to **Dialog** and select **Add Node**.



2. In the **If assistant recognizes** field, type the desired intent.

Example: We're using the `#General_Greetings` intent, which detects various hello messages. This intent was imported from the **General** category inside the **Content Catalog**.

The screenshot shows the IBM Watson Assistant Plus interface. On the left, there's a sidebar with options like Intents, Entities, Dialog (which is selected), Options, Analytics, Versions, and Content Catalog. The main area shows a tree structure of nodes under the 'Dialog' tab. One node is expanded, showing 'Welcome welcome' with '1 Responses / 0 Context Set / Does not return'. Another node is '#General_Greetings' with '0 Responses / 0 Context Set / Does not return'. A third node is 'Anything else anything_else' with '1 Responses / 0 Context Set / Does not return'. To the right, there's a configuration panel for the '#General_Greetings' node. It has sections for 'Enter node name (optional)', 'If assistant recognizes' (containing '#General_Greetings'), 'Assistant responds' (with a 'Text' dropdown and an 'Enter response text' field), and 'Then assistant should' (with a note about response variations). A red box highlights the '#General_Greetings' entry in the 'If assistant recognizes' list, and a red arrow points from the text above to this entry.

3. Inside the **Assistant responds** text field, write your response.

Assistant responds

This screenshot shows the 'Assistant responds' configuration screen. It has a 'Text' dropdown set to 'Text'. Below it is a large text input field containing the text 'Hi there! Check out this website.' This entire text input field is highlighted with a red box. Below the text input is a smaller 'Enter response variation' field. At the bottom, there's a note about response variations being set to 'sequential' and links to 'random' or 'multiline' options, along with a 'Learn more' link.

[Add response type +](#)

4. Around the word/phrase that you want to become a link, type the HTML code below.

```
<a href="[Website URL]" target="_blank">[Word/Phrase]</a>
```

Including the `target="_blank"` parameter will cause the website to open in a new

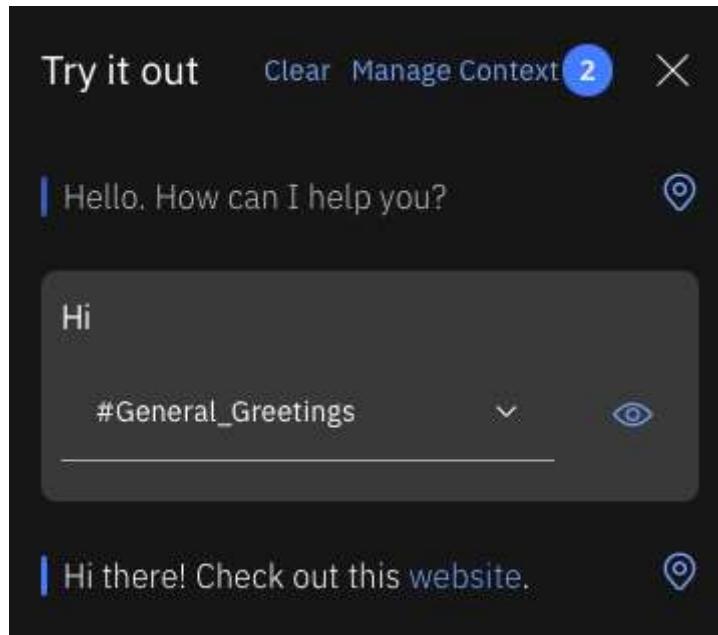
tab, so that the chat will still continue in the original window.

Plugging in “<https://duke.edu/>” as the *Website URL*, and using “website” as the *Word/Phrase*, we have:

Assistant responds

The screenshot shows the Microsoft Bot Framework designer interface. A red box highlights a response variation: "Hi there! Check out this website." Below it is an "Enter response variation" input field and a note about response variations being set to "sequential".

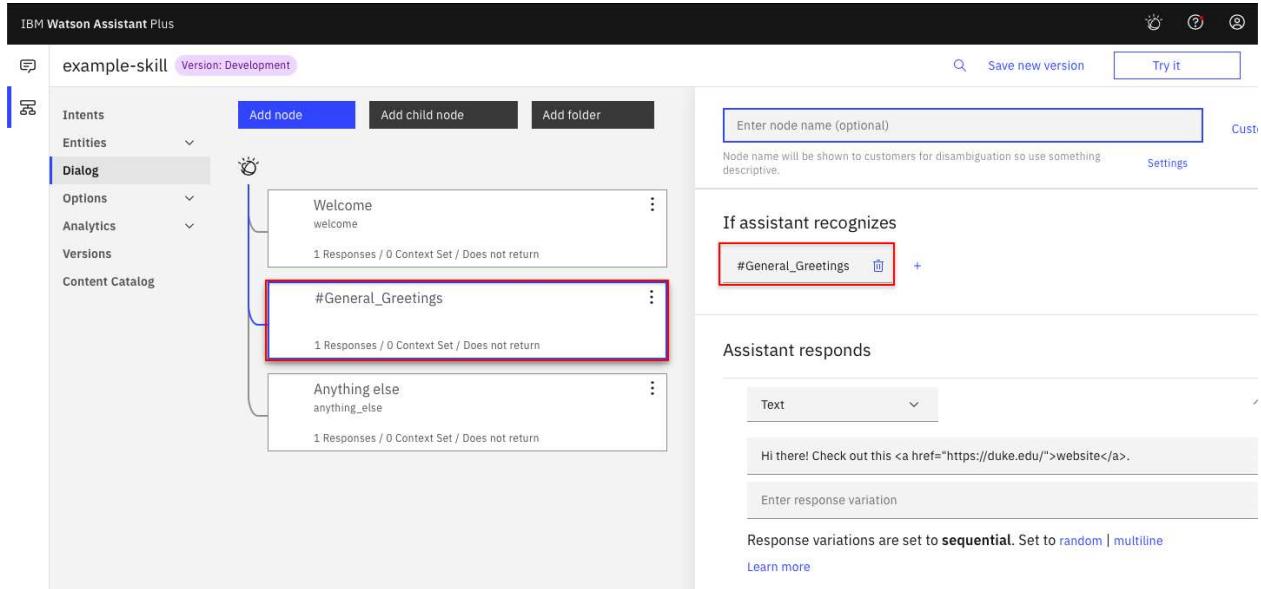
- When your intent is detected, your website will appear linked in the chatbot window!



Updating a Link

- Select the dialog node with the link you wish to update. In this example, we use a node with the #General_Greetings intent, which recognizes different greeting

statements. You can import this intent from the **Content Catalog** under the **General** category.



The screenshot shows the IBM Watson Assistant Plus interface. On the left, there's a sidebar with options like Intents, Entities, Dialog (which is selected), Options, Analytics, Versions, and Content Catalog. The main area displays a dialog tree. A node named '#General_Greetings' is highlighted with a red box. The tree structure includes 'Welcome' (welcome) and 'Anything else' (anything_else). To the right, there's a section for 'If assistant recognizes' with a list item '#General_Greetings'. Below that is an 'Assistant responds' section with a 'Text' dropdown containing the text 'Hi there! Check out this website.' There are also fields for 'Enter response variation' and a note about response variations being set to 'sequential'.

2. Swap the *Website URL* within the HTML code to the newer URL. In this example, we are swapping <https://duke.edu/> for <https://registrar.duke.edu/>. Referencing the code below, we can substitute the URL's like this:

```
<a href="[Website URL]" target="_blank">[Word/Phrase]</a>
```

If assistant recognizes

#General_Greetings  +

Assistant responds

Text     

Hi there! Check out this website.

Enter response variation 

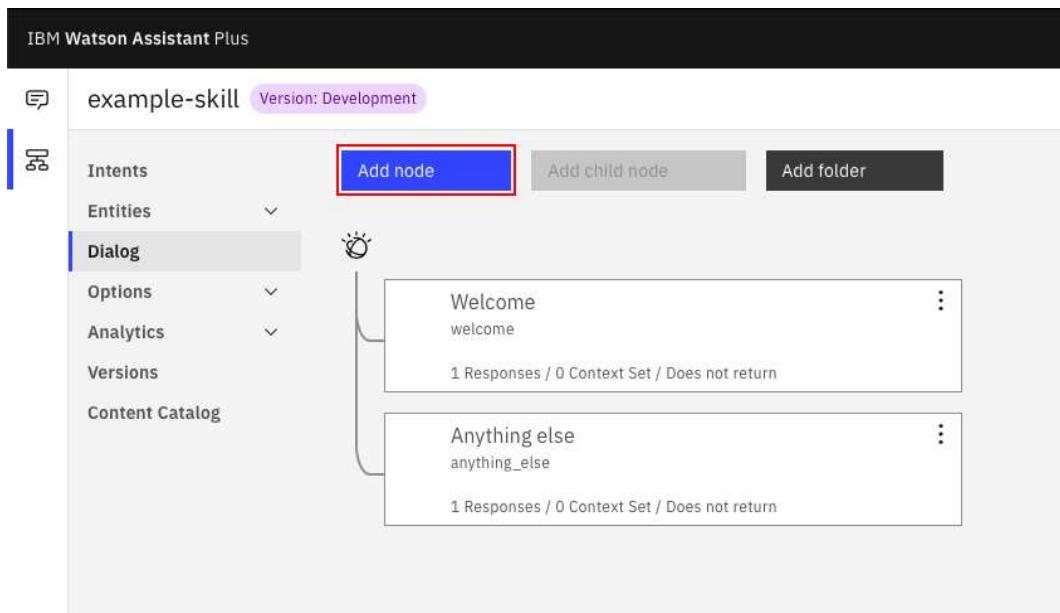
Response variations are set to **sequential**. Set to [random](#) | [multiline](#)
[Learn more](#)

3. After you change the URL, you're good to go!

Email and Phone Number Links

1. Navigate to **Dialog** and select **Add node**.

IBM Watson Assistant Plus



The screenshot shows the IBM Watson Assistant Plus interface. The top navigation bar is black with the text "IBM Watson Assistant Plus". Below it, the main workspace has a dark background. On the left, there's a sidebar with icons for "example-skill" (version Development), "Intents", "Entities", and "Dialog". The "Dialog" tab is selected and highlighted in blue. Under "Dialog", there are sections for "Options" and "Analytics", both with dropdown menus. The "Content Catalog" section is also visible. In the center workspace, there are two nodes listed under the "Dialog" section. The first node is "Welcome" with the pattern "welcome" and the description "1 Responses / 0 Context Set / Does not return". The second node is "Anything else" with the pattern "anything_else" and the description "1 Responses / 0 Context Set / Does not return". Each node has a three-dot menu icon to its right. At the top of the workspace, there are buttons for "Add node" (highlighted with a red box), "Add child node", and "Add folder".

2. In the “If Assistant Recognizes” field, type in the desired intent. In this example, we’re using the **#General_Greetings** intent, which detects various hello messages. This intent was imported from the **General** category inside the **Content Catalog**.

The screenshot shows the IBM Watson Assistant Plus interface. On the left, there's a sidebar with options like Intents, Entities, Dialog (which is selected), Options, Analytics, Versions, and Content Catalog. The main area shows a tree structure of dialog nodes: Welcome (welcome), #General_Greetings, and Anything else (anything_else). The #General_Greetings node is highlighted with a blue box. To the right, there's a configuration panel for this node. Under 'If assistant recognizes', the input field contains '#General_Greetings' with a red box around it. An arrow from the 'Content Catalog' section in the sidebar points to this field. Other sections include 'Assistant responds' (Text, Enter response text) and a note about response variations.

3. To create a hyperlinked **email address**, type this HTML code around the word or phrase to be linked. It’s important to note that before any occurrence of the “@” symbol, you must place a single backslash character, “\”.

```
<a href="mailto:[Email Address]">[Word/Phrase]</a>
```

This screenshot is similar to the previous one but shows the 'Assistant responds' section. Instead of plain text, it contains the HTML code: registrar@duke.edu. A red box highlights this entire line of code. A red arrow from the 'Content Catalog' section in the sidebar points to the 'Assistant responds' field.

In this example, the *Word/Phrase* and the *Email Address* are the same, but you are free to customize the *Word/Phrase* however you like.

Also, if you would like to set up an automatic subject line, body, or other parameters when the email link is clicked, check out this [website](#) for more information.

4. In order to make a hyperlinked **phone number**, use this HTML code. Make sure you put in the phone number without any separators, as one continuous number.

```
<a href="tel:[Phone Number]">[Word/Phrase]</a>
```

View Analytics Through IBM

You can view basic analytics such as the total number of conversations as well as top intents and entities through IBM's website.

1. From the chatbot Home navigation click to be taken to view the bot's dialog

The screenshot shows the IBM Watson Assistant Plus interface. At the top, there is a navigation bar with 'IBM Watson Assistant Plus' on the left and three icons on the right. Below the navigation bar, there is a sidebar with '← Assistants' and 'RegistrarBot'. The main content area is divided into two sections: 'Dialog' on the left and 'Integrations' on the right. The 'Dialog' section has a red border around it. Inside the 'Dialog' section, there is a card for the 'registrar' version of the 'RegistrarBot'. The card displays the following information:

- LANGUAGE:** English (US)
- TRAINED DATA:** 103 Intents | 20 Entities | 136 Dialog nodes
- VERSION:** draft
- DESCRIPTION:** ...

Below the card, there is a section titled 'LINKED ASSISTANTS (1): RegistrarBot'.

The 'Integrations' section on the right shows a 'Web chat' integration with a blue icon and a 'Choose a channel to deploy your assistant.' button. A red arrow points from the text 'Click Analytics on the left menu bar' to the 'Search' section at the bottom left of the 'Dialog' section.

2. Click **Analytics** on the left menu bar

IBM Watson Assistant Plus

registrar Version: Development

Intents Entities Dialog Options Analytics Versions Content Catalog

Analytics (highlighted with a red box) has a red arrow pointing to it from the left.

	Intents (103) ↑	Description	Modified ↑	Conflicts ↑	Examples ↑
<input type="checkbox"/>	#access_dukehub	Can't get on DukeHub (as an alum)	6 days ago		5
<input type="checkbox"/>	#accidental_enroll_cost	Is there a fee to withdraw from su...	a day ago		4
<input type="checkbox"/>	#add_outside_class	Graduate student who wants to ad...	a day ago		2
<input type="checkbox"/>	#ask_prematriculation	Credit for college courses taken in ...	2 days ago		8
<input type="checkbox"/>	#ask_transfer_credit	Get credit from another university	6 days ago		5
<input type="checkbox"/>	#calculate_GPA	Show how GPA is calculated for ea...	6 days ago		5
<input type="checkbox"/>	#canceled_class	A class disappeared from my sche...	6 days ago		2
<input type="checkbox"/>	#change_address	Change student address	a day ago		4

Showing 1–100 of 103 intents

1 1 of 2 pages

IBM Watson Assistant Plus

registrar Version: Development

Save new version Try it

Intents Entities Dialog Options Analytics Overview Autolearn User conversations Versions Content Catalog

Analytics (highlighted with a red box) has a red arrow pointing to it from the left.

Autolearning can help improve your assistant's responses.

Data Source: registrar Last updated: 5:03 PM Refresh data

This week 26 Jul 21 to 29 Jul 21 by day Filter

Intents Entities

Total conversations	31	Avg. msg. per conversation	3.87	Max. conversations	12	Weak understanding	11 msg.
				07/27/2021 View logs			

Containment (highlighted with a red box)

No containment data

No data is available to show in the containment metric right now. Typically, the data is missing for one of the following reasons:

- Your dialog doesn't use a capability that is needed for this metric.
- No customer requests for a human agent were logged.

Update your dialog to allow for transfers to a human agent. After adding this capability, you can use it to measure how often your assistant is able to satisfy a request without human intervention

IBM Official Documentation

While we've tried our best to document IBM Watson's essential and most common features, there is still much more IBM Watson is capable of. Here is the official IBM documentation to reference if you would like to learn more.

IBM Watson Assistant Official Documentation:

https://cloud.ibm.com/docs/assistant?topic=assistant-getting-started&_ga=2.21935803.1272816929.1603116070-718699761.1602794626#getting-started