

Boomi's Legal Response Bot Requirements Specification (SRS)

Version 1.0

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Revision History -

Name	Date	Reason For Changes	Version
William Angola	4/20/2021	Initial draft	1.0 draft 1

1. Introduction

1.1 Purpose

Dell Boomi is a business acquired by Dell in 2010 that specializes in providing software as a service and integration platform as a service to customers, as well as products related to API management, Master Data Management, and data preparation. It is a wholly-owned subsidiary of Dell Technologies, an American multinational technology company headquartered in Round Rock, Texas, formed because of the September 2016 merger of Dell and EMC Corporation. A part of the Boomi mission is to provide an intelligent, flexible, and scalable platform quickly and easily across companies and their businesses to transcend and manifest the way they connect across a variety of social and civic purposes.

As part of this project, I coordinated with Dell Boomi's Legal team to spot issues and consider potential problems that new software could relieve. While the great Dell Technologies legal team consist of thousands of legal professionals, Dell Boomi legal team consist of approximately ten full-time in-house legal counsels whose chief responsibilities include providing overall leadership and legal support to Dell Technologies in general, but mainly to Dell Boomi Inc, a rapidly growing supplier of a cloud integration platform. The legal team handles a substantial volume of sales, inbound and outbound licenses, compliance matters, any disputes, all legal issues pertinent to a worldwide cloud services business.

With all of this in mind, the proposed system to Dell Boomi's legal department will be able to save time by providing quick automated responses to frequently asked questions in-house for Dell Technologies. This, in turn, will increase customer satisfaction and attract new customers due to the legal's team response times and priority of current business endeavors.

1.2 Scope

Boomi iPaaS Solutions & Tools for Cloud-Connected Business;

Provide end-to-end capabilities including application integration, data quality governance, B2B/EDI network management, API management, and workflow automation. These strategies help any business worldwide improve connectivity, modernize, transform, and innovate. Businesses that are winning with Boomi are AMMEX, CEnet, American Express, Cornell University, Sky, and 12,000 more.

One key issue identified was that this legal department works within a budget and time constraints to resolve a wide range of problems to negotiate and close complicated transactions. Spending too much time answering important, although straightforward questions from the various departments and stakeholders outside of the legal group can take valuable time away from focusing on more complicated issues, particularly during the end of each fiscal quarter, when the business must focus on meeting revenue-generating goals. The proposed solution is to create an automated resolution "bot" that provides answers to commonly asked, straightforward, and easily answered questions in real-time, which will free up resources for legal department leaders to focus on more pressing – and more complicated – tasks. The goals are to develop an automated Q&A, available to various departments and stakeholders outside of legal, to reduce busywork, improve response times, create consistencies in answers and resolutions, advance customer interaction, and allocate resources to imperative deals.

1.3 Product overview

1.3.1 Product perspective -

Operational concept

Operational policies and constraints -

Policies -

[DBO-1] **Appointment** - Sales team sets up an Account Executive (AE) with a potential customer.

[DBO-2] **Development** - The appointed AE would work with Boomi's product and engineering team and the customer to find the right products and services that will work for the customer.

[DBO-3] **Transaction** - Negotiations about pricing begin and the finance team will get involved if a customer requests unique billing or payment terms that need internal approval.

[DBO-4] **Top-class** - The legal team may get involved if it's a large deal and the customer request substantive edits or revision to the sales document (These are considered Master Service Agreement) and then pending other request or needs the customer has, the product and engineering team gets involved for approvals.

[DBO-5] **Engagement** - Once the deal is signed, the professional services team helps the customer get started using their services, and the "Customer Success" team stays involved to make sure the customer is happy and engaged with making the most out of these services.

[DBO-6] **Accountability** - The Accounts Receivable team might get involved if customers fail to make payments.

[DBO-7] **Consistency** - The legal team remains available and engaged for a variety of issues where they spot legal risks or provide advice on the current outgoing sales side.

Constraints -

[DBO-8] **Time** - When are deadlines concluding.

[DBO-9] **Money** - Is more money needed for changes in scope and features.

[DBO-11] **Risk Tolerance** - Can the project take the risk of another investment.

[DBO-12] **Internet connectivity** - Will all users have access to the system.

[DBO-13] **Quarterly deadlines** - Who will manage the system in closing deadlines.

description of the proposed system;

The proposed system is to create an automated resolution "bot" for Dell Boomi's legal department that provides answers to commonly asked questions in real-time, which will free up resources for the legal department leaders to focus on more pressing- and more complicated - tasks.

modes of system operation;

The proposed system will have two different modes of operation: Standard, which will sustain access capacity throughout all of Dell Boomi business at about 70% to support regular business operations, and Loaded, which will sustain full access capacity throughout all of Dell Boomi business to support nearing quarterly deadlines.

user classes and other involved personnel; and

Personnel involved with the proposed system will be the legal department, developers, software engineers, and each department under the scope of Dell Boomi's business trying to access the system. I.e. Any stakeholders.

support environment.

The proposed system contents will be updated by the legal department and sustained by developers/software engineers assigned to the project.

Operational scenarios -

[DBOU-1] Users - Users will have to enter credentials to enter the website/app, once signed in the response "bot" will prompt the user to enter a question. This could have two responses one with the answer for the questions or information on how to contact the legal team as the question is not common criteria. The user will be able to enter more than one question once their previous question has been responded to.

[DBOU-2] Operators - The legal team will support the answer feed to a specific question with direct access to the database or another system that will allow change of information within the database without having to access it directly.

[DBOU-3] Maintainers - The developers/software engineers will have access to the complete software allowing for updates and fixes. They will accept bug reports and potential updates needed to improve the website/app.

1.3.2 Product functions -

The BLRB's major functions should consist of receiving and answering commonly asked legal questions provided by the legal department to provide consistency and save time. The legal questions/answers should be able to be updated/added/removed by the legal team and users should be able to interact with the response bot or view the list of questions/answers and provide feedback to the team for improvements.

BLRB will relate to other software systems currently used by Dell Boomi, such as Microsoft Teams, Salesforce, Sharepoint, and Guru to name a few. These current systems have a specific information login requirement for each Boomi employee. Typically accounts created by Dell Boomi employees must follow this format (Format: email: example@dell.com, the password must be 8 characters long which includes lower and uppercase letters and at least one special character). Thankfully, the requirements for the BLRB already abide by the password format. This type of relationship is a single sign-on relationship where all independent yet related systems can share the same login information. Note some software systems used by Dell Boomi do not follow this format. Changes may occur. Additionally, BLRB will relate to third-party products produced by Boomi, by providing hyperlinks to these product pages for any Boomi personnel looking for legal information about that product.

The Context Diagram (Level 0 Data Flow Diagram) is found below under Specific Requirements.

1.3.3 User Characteristics -

- Boomi department employees should have the technical expertise to go through the process of reaching the response "bot" page and entering credentials to confirm their identity.
- The legal department should have the experience/educational level of coming up with a multitude of commonly asked legal questions and technical expertise to update the response "bot" questions with the backend system.
- Users should be patient when the response "bot" does not have an answer to their questions and technical expertise to ask the "bot" for contact information to call/text the legal department for assistance.
- Users should have self-control and not contact the legal department directly unless the response "bot" cannot provide an answer.
- Users who have experience with the response "bot" may find it easier to find answers to their questions and know if the complexity of the question is in the scope of the bot answers.

1.3.4 Limitations -

Key	Summary	Description	Labels
DB-40	The legal department's answers are to comply with Boomi's policies and rules.	All answers provided by the legal department must conform to Boomi's policies and rules.	Limitation
DB-39	The correction of answers provided by BLRB is to be handled by the legal department.	If there are any errors in the answers provided by the legal department, they must update answers to comply with Boomi's policies and rules.	Limitation
DB-38	BLRB's interface will be built using SceneBuilder (subject to change).	Personal preference but if other applications are better for building interfaces I will use those.	Limitation
DB-37	BLRB answers will be made by the legal department and not by developers due to expertise.	Developers should not be providing legal information.	Limitation
DB-36	BLRB's creation of databases and scale may be hindered by my knowledge in the field, I have never built software to a company scale.	Personal limitation as I am not certain of my expertise to create BLRB at an efficient level.	Limitation
DB-35	BLRB must provide correct legal answers to uphold Boomi's value of integrity,	Incorrect legal answers cannot be provided as they will create confusion and complications, harming one of Boomi's core values being integrity.	Limitation
DB-34	BLRB will only be used by Boomi personnel.	BLRB is only to be used by Dell Boomi employees as legal information is not public information unless given access to.	Limitation
DB-33	BLRB must be written using Java, Python, or C++.	Language constraint placed on BLRB as these are the languages I would feel comfortable creating software in.	Limitation
DB-32	The system can only go down for maintenance between (Undecided time frame).	By setting a specific time frame for updates or maintenance it will provide a consistent cycle for developers/legal department to complete tasks and avoid unwanted downtime as Boomi has employees around the globe.	Limitation
DB-31	Passwords must have (at least one special character, at least one upper case letter, and at least one lower case letter) and at least 8 characters long.	Passwords must have (at least one special character, at least one upper case letter, and at least one lower case letter) and at least 8 characters long.	Limitation

2. References

Websites:

<https://boomi.com/vision/>
<https://boomi.com/customers/>
<https://resources.boomi.com/resources/briefs/get-to-know-boomi>
<https://en.wikipedia.org/wiki/Dell> (List of Acquired companies)
<https://boomi.com/company/events/>
<https://resources.boomi.com/resources/customer-stories>
<https://boomi.com/services/support/>
<https://boomi.com/company/leadership-team/>
<https://corporate.delltechnologies.com/en-us/about-us/who-we-are/code-of-conduct.htm>

People:

Edward McCarthy (leadership role and legal support for Dell Technologies)



























Books:





29148-2018 IEEE Standard
Software Requirements Third Edition by Karl Wieggers and Joy Beatty
MITRE System Engineering Guide
SWEBOK v3.0 IEEE

3. Specific requirements

Key	Summary	Description	T	Linked Issues	P	Labels
DB-65	When the legal info database is updated, the BLRB shall mirror the update to the Boomi Legal info backup database in case of errors/corruption.	Rationale: Having the legal info database mirrored to another backup database will ensure that there is a fail-safe in case the main database has a critical error.	☰		↑	Functional
DB-64	If a legal counsel clicks the edit question button, then BLRB shall display the edit mode page within 30 seconds.	Rationale: Any user, especially legal counsels with limited time will appreciate a consistent time frame for load times when trying to make edits to the list of legal questions. This time frame is a little longer than other requirements as the complete list of questions /answers will be loaded.	☰		↓	Nonfunctional
DB-63	The BLRB shall share the account information database with the Dell hub for single sign-on capabilities.	Rationale: Having the two systems share a database will support interaction allowing any Boomi personnel entry from any point with the same information. Logical database requirement.	☰		↑	Functional
DB-62	If the legal counsel submits a change to the list of legal questions without any issues, then the BLRB shall prompt the legal counsel to wait for other's approval.	Rationale: If the change has no basic issues it will be sent to other legal counsels for approval to maintain consistency within the legal questions. This could potentially be verifiable by providing an ID to the change that occurred and sending an email to the legal counsel that made the change once it has been approved or denied.	☰	DB-20	↑	Functional
DB-61	If the legal counsel submits a change to the list of legal questions, then the BLRB shall prompt the legal counsel if a submission issue occurs.	Rationale: If a legal counsel submits a change to the list of legal questions they should be notified if an issue occurs. Issues can range from duplicate questions/answers, incorrect spelling, and incomplete changes such as a blank field. Some of the changes may	☰	DB-20	↑	Functional











need to be verified by other legal counsels and the prompt may appear later after revision (another requirement was made to tackle this issue).

DB-60	The BLRB shall allow users to access the Dell Hub through the BLRB home page.	Rationale: Boomi personnel need to have the capability to reach the hypothetical larger system called "Dell Hub" to reach other Dell /Boomi products/partners. Interface requirement.			Function al
DB-59	If the user does not provide the correct login information, then the BLRB shall prompt the user to enter valid login information.	Rationale: Boomi personnel must be notified if the information they entered for their username or password is incorrect. Usability requirement.			Function al
DB-58	Every three months, the BLRB shall prompt the user to update/change their password to maintain user security.	Rationale: Updating/changing one's password every three months is a requirement for all Dell Boomi employees.			Nonfunction al
DB-57	The BLRB shall allow users to search for third-party products involved with Dell Boomi to depict correct legal information.	Rationale: The information provided by the BLRB will be limited to Dell Boomi's scope. It will not provide information about other of its third-party products but It should have the capability to provide direct links for any Boomi personnel looking for legal information about a specified product. Note, Boomi and its employees do not endorse the contents of the third-party sites.			Function al
DB-56	The BLRB shall provide a disclaimer about the legal information.	Rationale: The BLRB shall provide a disclaimer about the information provided by the bot. The information provided by the BLRB does not, and is not intended to, constitute legal advice; instead, all information content and materials available on this site are for general information purposes only.			Function al
DB-50	While the user is logged in, the BLRB shall respond to any number of question entries.	Rationale: The BLRB shall not stop responding to questions until the user exists. Even if all questions were not satisfied the BLRB will continue to provide until the user is satisfied. Note - This follows the EARS structure of Optional features.			Nonfunction al
DB-49	When the user is logged in, the BLRB shall allow users to provide feedback to the BLRB to improve bot interaction.	Rationale: Having user feedback is a great tool to maintain the software's health. User satisfaction is key. Not sure if it would have been better to use the EARS Ubiquitous structure here.			Function al
DB-48	The BLRB shall prevent unauthorized access.	Rationale: The BLRB will only be used by Boomi personnel. Note: This follows the EARS structure of Ubiquitous requirements. This could be interpreted as ambiguous by SE as they understand the ins /outs of software security.		DB-34 	Function al
DB-47	BLRB shall permit legal counsels to remove legal answers to abide by current Boomi standards.	Rationale: BLRB must allow legal counsels to remove and update legal questions according to current standards to avoid conflicts with current transactions. This requirement is like https://wangola.atlassian.net/browse/DB-43 to ensure that these requirements are singular.		DB-39 	Function al
DB-46	If the user clicks the view all questions button, then the BLRB shall display all current legal questions /answers.	Rationale: The account receivable provided a feature to view all questions on in own terms. All of the questions stored in the database may take some time to load and defeat the whole purpose of the response bot itself but some may not enjoy interacting with a bot. (Note - This follows the EARS structure of unwanted behaviors but I thought it could also be applied to wanted behaviors).		DB-17 	Function al
DB-45	When a legal question is not found, the BLRB shall display legal department contact information within 10 seconds.	Rationale: BLRB is not going to use Machine learning algorithms as this concept is out of my understanding for now, and I'm not sure how advanced the algorithm has to be to provide consistent and correct legal answers. If BLRB does not provide a current legal answer from the database the legal department will gladly help.			Nonfunction al
DB-44	When a legal question is entered, the BLRB shall display a correct legal response within 10 seconds.	Rationale: Most stakeholders want quick response/quick access to legal information and placing a constraint of 10 seconds may allow stakeholders to be satisfied with its speed.		DB-19 	Nonfunction al
DB-43	BLRB shall permit legal counsels to update legal answers to avoid inaccurate responses.	Rationale: The legal department must be able to update legal answers to avoid confusion within other departments and maintain integrity within Boomi's legal scope. I.e. Questions/answers that don't conform to Boomi's standards will cause issues.		DB-20 	Function al

DB-42	When the user is not logged in, the BLRB shall display a login screen for username and password.	Rationale: If the user is not logged in it is convenient to display a login screen for the users. This system is strictly only for Boomi personnel use and only displaying a login screen will filter some unwanted users from attempting to breach in other ways increasing security.		DB-34		Nonfunctional
DB-41	Once the user is logged in, the BLRB shall prompt the user within 6 seconds to input a question.	Rationale: Once the users are logged in the response bot should provide a prompt within 6 seconds so the users can input questions. User input is extremely important with the system as the interaction will revolve around the system response and user questions.		DB-18		Nonfunctional

20 issues

User Stories:

Key	Summary	Description	T	Linked Issues	P	Labels
DB-20	As a Legal Counsel, I want the response bot to provide stakeholders with reliable answers to questions that would otherwise need to come from a lawyer so that more time-sensitive and critical issues could be dealt with.	As a Legal Counsel, I want a type of software that provides stakeholders with reliable answers to questions that would otherwise need to come from a lawyer – and take time away from more time-sensitive and critical issues – that could create some efficiencies and make a meaningful impact on the company.		DB-43 , DB-61 , DB-62		
DB-19	As a Account Executive, I want a tool for quick legal information so that the legal team can focus on more substantive and critical issues.	As a Account Executive, Any tool to get me information more quickly would be beneficial, both to me and to the legal team, so that they could focus on more substantive and critical issues the company faces.		DB-44		
DB-18	As a Sales Engineer, I want quick access to legal information so that I don't need to communicate with the legal team in person.	As a Sales Engineer, I want some real value in having quick access to information that we otherwise need to obtain from a lawyer, in person.		DB-41		
DB-17	As a Account Receivable, I want relatively available legal information to access and navigate on my own so that the business process is more efficient.	As a Account Receivable, I want information we need available through a software tool we could access and navigate on our own, which would create a ton of efficiencies.		DB-46		
DB-16	As a Sales member, I want quick access to legal answers so that I don't feel like I'm disturbing the Boomi legal team.	As a Sales team member, It would be helpful to have certain information readily available in a self-help tool, both so that I can get quick access to the answers, but also so that I don't feel like I'm bothering the Boomi legal team.				

5 issues

3.1 Supporting information -

- Use cases -

Primary Actor	Use Cases
Legal Counsel	B2. Update legal answer. B3. Remove legal question.
Sales Engineer	B1. Ask a legal question. B4. Create an account.

UC ID and Name:	UC-B1 Ask a legal question		
Created By:	William Angola	Date Created:	3/5/2021
Trigger:	A Boomi personnel wants answers to a legal question.		

Description:	Boomi personnel may need to ask legal questions when producing legal documents that pertain to data privacy and security protocols or when dealing with customers. The outcome will produce answers pertaining to these legal questions or provide ways to contact the legal department if the answer is not provided.
Preconditions:	<ol style="list-style-type: none"> 1. Boomi personnel must be logged in to the BLRB. 2. Boomi personnel has a legal question.
Postconditions:	<ol style="list-style-type: none"> 1. Answer to the legal question. 2. Allows input for more legal questions if needed.
Normal Flow:	1.0 Ask a single legal question <ol style="list-style-type: none"> 1. Boomi personnel logs in to the BLRB. 2. BLRB prompts the Boomi personnel to enter or select a question. 3. Boomi personnel selects or enters a question. 4. BLRB displays the correct answer according to the questions.
Alternative Flows:	1.1 Ask multiple legal questions <ol style="list-style-type: none"> 1. Boomi personnel logs in to the BLRB. 2. BLRB prompts the Boomi personnel to enter or select a question. 3. Boomi personnel selects or enters a question. 4. BLRB displays the correct answer according to the questions. 5. BLRB prompts the user if they need help with more questions. 6. Return to step 3.
Exceptions:	1.0.E1 Question asked does not have an answer. <ol style="list-style-type: none"> 1. BLRB prompts the Boomi personnel of the inconvenience. 2. BLRB displays legal department contact info and highlights the help button for a complete view of all legal contacts.
Business Rules:	<ul style="list-style-type: none"> • DB-34 • DB-35 • DB-39

UC ID and Name:	UC-B2 Update legal answer		
Created By:	William Angola	Date Created:	3/6/2021
Primary Actor:	Legal Counsel	Secondary Actors:	Developers
Trigger:	If a Legal Counsel finds or is notified of an error within a legal answer.		
Description:	A Legal Counsel will want to update a legal answer if an error is found or Boomi policies have changed to uphold the correctness of all legal answers to avoid confusion. The outcome will provide correct legal answers to maintain the integrity of BLRB.		
Preconditions:	<ol style="list-style-type: none"> 1. Legal Counsel must be logged in to BLRB. 2. Legal Counsel enters the update page. 		
Postconditions:	<ol style="list-style-type: none"> 1. Current legal questions/answers are saved into a data warehouse in the case of corrupted data and it needs to roll back. 2. BLRB responses are updated and are reflected in its responses. 		
Normal Flow:	1.0 Update a single legal answer <ol style="list-style-type: none"> 1. Legal Counsel logs in to the BLRB. 2. BLRB acknowledges legal counsel log in with a prompt. 3. Legal Counsel selects update page. 4. BLRB displays the view of current legal questions and answers. 5. Legal Counsel selects questions to be updated. 6. BLRB displays questions selected in edit mode. 7. Legal Counsel updates question/answer. 8. BLRB prompts if changes are complete before committing the change. 9. Legal Counsel confirms changes and returns to view mode. 		
Alternative Flows:	1.1 Updated multiple legal answers <ol style="list-style-type: none"> 1. Legal Counsel logs in to the BLRB. 2. BLRB acknowledges legal counsel log in with a prompt. 		

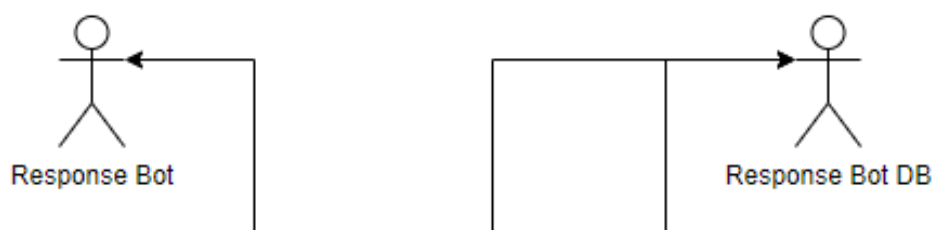
	<ol style="list-style-type: none"> Legal Counsel selects update page. BLRB displays the view of current legal questions and answers. Legal Counsel selects questions to be updated. BLRB displays questions selected in edit mode. Legal Counsel updates question/answer. Return to step 5 until no other question is going to be updated. BLRB prompts if changes are complete before committing the change. Legal Counsel confirms changes and returns to view mode.
Exceptions:	1.0.E1 Changes are not confirmed. <ol style="list-style-type: none"> BRLB alerts Legal Counsel if he/she attempts to exit pages before confirming changes. If the Legal Counsel does not confirm changes, questions/answers will not change and roll back to their original state.
Business Rules:	<ul style="list-style-type: none"> DB-34 DB-37 DB-39 DB-40

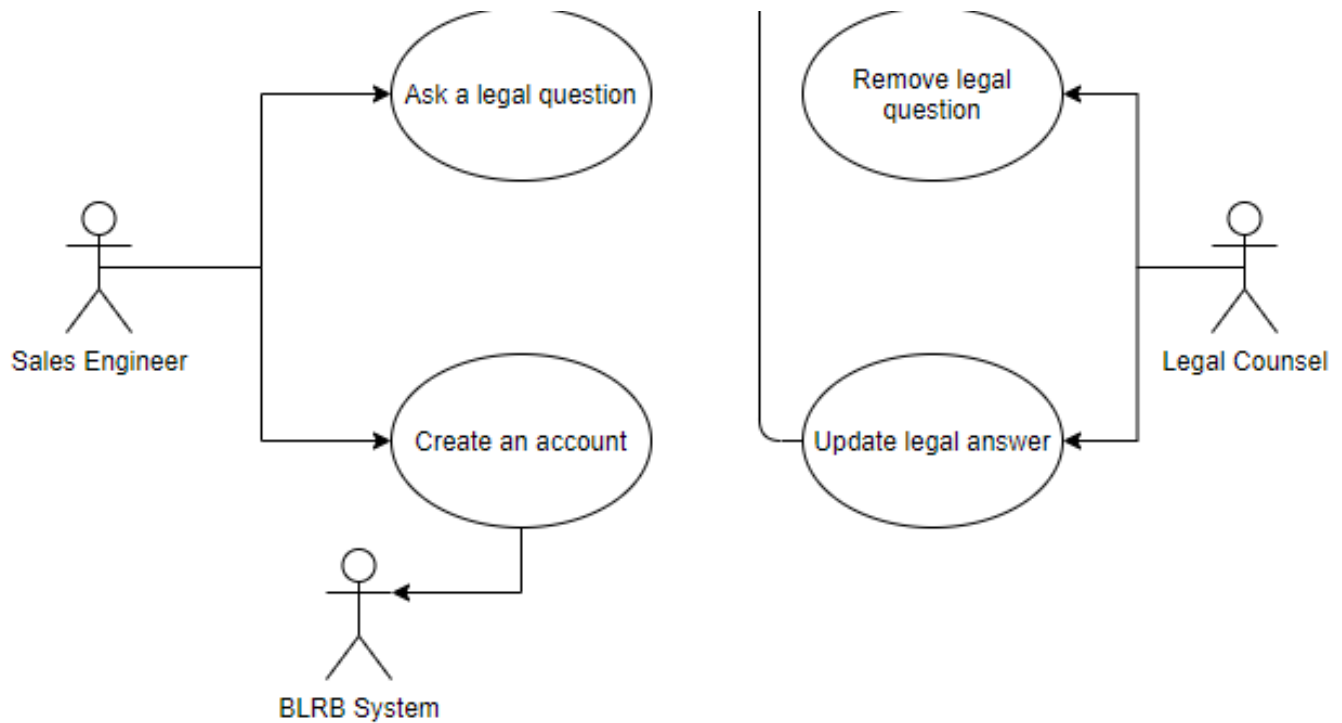
UC ID and Name:	UC-B3 Remove legal question.		
Created By:	William Angola	Date Created:	3/6/2021
Primary Actor:	Legal Counsel	Secondary Actors:	Developers
Trigger:	If a Legal Counsel finds a question that is not fit or follows Boomi's policies and rules.		
Description:	A Legal Counsel will want to remove legal questions if they don't abide by Boomi's policies and rules and must be approved by legal leaders. The outcome will result in consistent and correct inputs from Boomi personnel mitigating confusion.		
Preconditions:	<ol style="list-style-type: none"> Legal Counsel must be logged in to BLRB. Legal Counsel must be on the update page. 		
Postconditions:	<ol style="list-style-type: none"> BLRB provides the legal counsel with a verification number and updates once the request removal has been confirmed or denied. 		
Normal Flow:	1.0 Delete a single legal question. <ol style="list-style-type: none"> Legal Counsel logs in to the BLRB. BLRB acknowledges legal counsel log in with a prompt. Legal Counsel selects update page. BLRB displays the view of current legal questions and answers. Legal Counsel selects questions to be deleted. BLRB displays questions selected in edit mode. Legal Counsel selects delete button and inputs description. BLRB prompts the Legal Counsel to confirm the delete. Legal Counsel confirms delete reason. BLRB displays verification number and returns to view mode, no changes will occur until legal leaders confirm the reason for removal. 		
Alternative Flows:	1.1 Delete multiple legal questions. <ol style="list-style-type: none"> Legal Counsel logs in to the BLRB. BLRB acknowledges legal counsel log in with a prompt. Legal Counsel selects update page. BLRB displays the view of current legal questions and answers. Legal Counsel selects questions to be deleted. BLRB displays questions selected in edit mode. Legal Counsel selects delete button and inputs description. BLRB prompts the Legal Counsel to confirm the delete. Legal Counsel confirms delete reason. Return to step 5 until no other questions want to be deleted. BLRB displays verification number and returns to view mode, no changes will occur until legal leaders confirm the reason for removal. 		
Exceptions:	1.0.E1 Changes are not confirmed <ol style="list-style-type: none"> BRLB alerts Legal Counsel if he/she attempts to exit pages before confirming changes. 		

	<ol style="list-style-type: none"> If the Legal Counsel does not confirm the delete reason, verification numbers and request for removal will not be processed to legal leaders. <p>1.0.E2 No delete description is provided</p> <ol style="list-style-type: none"> BRLB alerts Legal Counsel that input is needed. Return to Step 4 of normal flow.
Business Rules:	<ul style="list-style-type: none"> DB-34 DB-35 DB-37 DB-39 DB-40

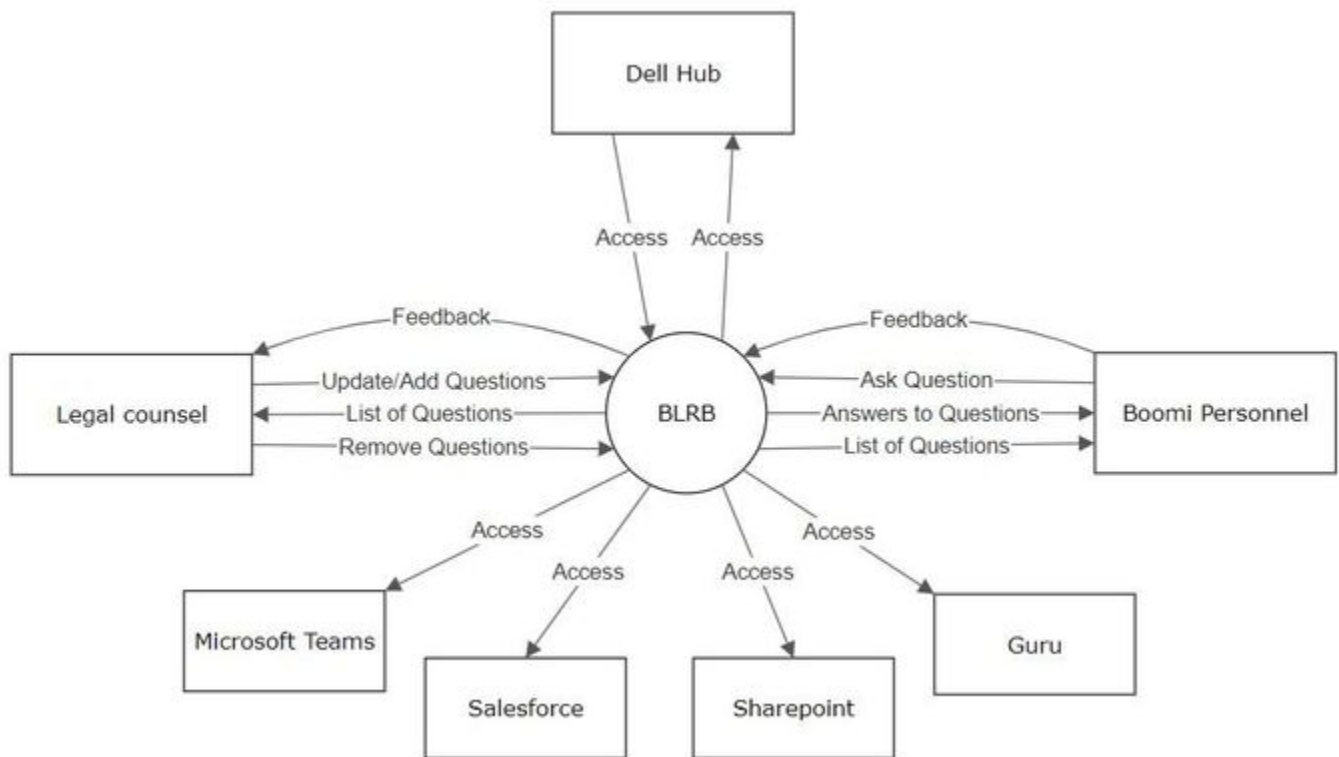
UC ID and Name:	UC-B4 Create an account.		
Created By:	William Angola	Date Created:	3/6/2021
Trigger:	Boomi personnel needs access to legal answers		
Description:	All Boomi personnel must create an account to have access to Boomi's legal information. The outcome is to increase security within BLRB and avoid unauthorized access.		
Preconditions:	<ol style="list-style-type: none"> Boomi personnel must have a device to access BLRB's home page. Boomi personnel must have a unique id specific to Boomi to create an account to restrict its access to only Boomi personnel. Passwords are restricted to DB-31 standards. 		
Postconditions:	<ol style="list-style-type: none"> Boomi personnel has an account created with a unique username and password. 		
Normal Flow:	<p>1.0 Create an account with the create account button.</p> <ol style="list-style-type: none"> Boomi personnel opens BLRB's home page. Boomi personnel selects the create account button. BLRB displays the create account form. Boomi personnel fills out the create account form. BLRB confirms account creation and sends authentication confirmation to Boomi's personnel email. Boomi personnel can log in. 		
Alternative Flows:	<p>1.1 Account creation canceled.</p> <ol style="list-style-type: none"> Step 3 of normal flow. Boomi personnel may cancel at any time when filling out the create account form. <p>1.2 Create an account after selecting login.</p> <ol style="list-style-type: none"> Boomi personnel opens BLRB's home page. Boomi personnel selects the login button. BLRB displays a prompt for login info. Boomi personnel does not have an account yet, so they select the create account button found in the login view. Return to step 3 of normal flow. 		
Exceptions:	<p>1.0.E1 Invalid information.</p> <ol style="list-style-type: none"> BLRB's create account form provides a detailed format wanted for each field. If Boomi personnel fails to enter the correct format, then BLRB will alert Boomi personnel of mistakes. Repeat step 2 until there are no errors in the information. 		
Business Rules:	<ul style="list-style-type: none"> DB-31 DB-34 DB-38 		

• Use case diagram -





• Context Diagram (Level 0 Data Flow Diagram) -



• Business Rules -

Key	Summary	T	Labels
DB-12	We care about the effect our leadership has on our people. We invest in them, develop them, and help them achieve their aspirations.	!	Rules
DB-11	We recognize we are not always right and not always the smartest person in the room, and we know our successes are shared.	!	Rules
DB-10	We are optimistic about our people, their potential, and the future while balancing it with the realities and challenges we face.	!	Rules

DB-9	We carefully define success and are relentless about communicating that vision in terms that are simple and compelling.	!	Rules
DB-8	We rely on facts, we are agile and change direction when it's the right thing to do.	!	Rules
DB-7	We cultivate ambition, energy, and grit in ourselves and in others, but bound our ambition with a strong desire to do the right thing.	!	Rules
DB-6	We know that strong relationships bring not only great business success but great personal fulfillment.	!	Rules
DB-5	We believe integrity must always govern our fierce desire to win.	!	Rules
DB-4	We believe in being accountable to an exceptional standard of excellence and performance.	!	Rules
DB-3	We believe our ability to innovate and cultivate breakthrough thinking is our engine for growth, success, and progress.	!	Rules
DB-2	We believe in and value our people. We perform better, are smarter, and have more fun working as a team than as individuals.	!	Rules
DB-1	We believe our customer relationships are the ultimate differentiator and the foundation for our success.	!	Rules

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- **Design constraints -**

- Passwords must have (at least one special character, at least one upper case letter, and at least one lower case letter) and at least 8 characters long.
- BLRB must be written using Java, Python, or C++.
- BLRB will only be used by Boomi personnel.
- The system can only go down for maintenance between (Undecided time frame).
- BLRB answers will be made by the legal department and not by developers due to expertise.
- BLRB's interface will be built using SceneBuilder (subject to change).
- The correction of answers provided by BLRB is to be handled by the legal department.
- Only legal counsels can create/update/remove legal questions.

- **Results of user surveys/elicitation -**

- Dell Tech: As a sales team member within Dell Technologies, we often make software and hardware sales to large enterprises, and certain Boomi branded products are combined with the Dell Technology products on one order form, for ease of customer review and to expedite the sale process. We need to work with the Boomi legal department in those instances to make certain the needed Boomi legal terms and conditions are in place, on the order form. It would be helpful to have certain of the information readily available in a self-help tool, both so that I can get quick access to the answers, but also so that I don't feel like I'm bothering the Boomi legal team.
- Accounts Receivable: I've worked in the finance department in Boomi for seven years, and as part of my role, I oversee collections from customers who fail to pay their bills as they become due. After an account is more than 90 days past due, we need information from the Boomi legal department in order to send the customer a notice of material breach and/or to send the customer account to a third-party collections lawyer. I know the Boomi legal team is a busy group, and they are more focused on closing deals to bring in new revenue as opposed to chasing down customers that refuse to pay for services. To the extent they could make the information we need available through a software tool we could access and navigate on our own, that would create a ton of efficiencies.
- Finance: The Boomi finance team is called on the approved negotiated terms and conditions in customer contracts that relate to the payment of amounts due, including requests to make monthly payments, request to pay bills other than 30-days after receipt of invoice, requests for refund rights, etc. We coordinate with the Boomi legal team to determine how those negotiated terms find their way into the final contract. We are a pretty tech-savvy group of finance experts, so we always welcome new technologies in finding ways to speed up processes and avoid human error. The Q&A "bot" sounds like it could be quite helpful in interacting with the legal leaders.
- Sales Engineering: As a Sales Engineer, my role is to make sure customers understand how our products work, which security protocols we have in place to protect their personal data that we process as part of our primary Boomi products and services, and to approve changes to legal documents that pertain to our data privacy and security protocols. I could see some real value in having quick access to information that we otherwise need to obtain from a lawyer, in person.
- Account Executive: My role as an account executive (AE) at Boomi allows me to be the primary point of contact for the customer. I essentially "own" the customer account, from making the initial pitch to working with the customer on what products and services work best for their use case, and where applicable, in escalating issues to the Boomi legal leadership team when customers have questions that are outside of my area of expertise (like the terms and conditions of our contracts!). Any tool to get me information more quickly would be beneficial, both to me and to the legal team, so that they could focus on more substantive and critical issues the company faces.
- Ed McCarthy, Legal Counsel, Dell Technologies. My primary job is to advise the company leadership in order to avoid bad legal risks. As part of that, I'm tasked with negotiating Master Service Agreements and Cloud-based "as a service" deals with customers primarily in North America, but also globally. I served as the primary Legal escalation point for revenue deals and manage internal negotiation positions as to operational and risk issues presented in the contracts. I collaborate with Sales, Operations, Finance, Legal, Tax, Insurance, Privacy, and IT Security groups to ensure that agreements meet Company policies

and protect the Company's interests. The job requires that we lawyers provide time-sensitive support to Account Management teams on Sales transactions while balancing business needs and risks. Recognizing risks and providing creative solutions to resolve issues is a key part of daily work. The chief goal is to convey complex and legally complicated information to Business Leaders in a concise and professional manner. Because Dell Boomi Inc is the fastest growing subsidiary of Dell Technologies and a rapidly growing supplier of the best cloud integration platform on the market, my team handles a substantial volume of sales, inbound and outbound licenses, compliance matters, any disputes, all legal issues pertinent to a worldwide cloud services business. Having the type of software that provides stakeholders with reliable answers to questions that would otherwise need to come from a lawyer – and take time away from more time-sensitive and critical issues – could create some efficiencies and make a meaningful impact on the company.

All of these results led to the creation of the current user stories and requirements.

• **High-level problems to be solved by the software (RTM) -**

User requirement, Business goals, Business Rules	Functional requirement, User stories	Design element	Code element	Test
DB-34: BRLB will only be used by Boomi personnel.	DB-48: The BLRB shall prevent unauthorized access. DB-59: If the user does not provide the correct login information, then the BLRB shall prompt the user to enter valid login information. DB-63: The BLRB shall share the account information database with the Dell hub for single sign-on capabilities.	Login page Create account page	login() createAccount()	1. Create a test case that checks if "Username & Password" entered is valid on the login page. 2. Create a test case that checks if the "Boomi ID" provided in the create account page is valid. 3. Create a test case that checks if the user previously logged in to the Dell Hub.
DB-5: We believe integrity must always govern our fierce desire to win.	DB-43: BLRB shall permit legal counsels to update legal answers to avoid inaccurate responses. DB-47: BLRB shall permit legal counsels to remove legal answers to abide by current Boomi standards. DB-56: The BLRB shall provide a disclaimer about the legal information. DB-61: If the legal counsel submits a change to the list of legal questions, then the BLRB shall prompt the legal counsel if a submission issue occurs. DB-62: If the legal counsel submits a change to the list of legal questions without any issues, then the BLRB shall prompt the legal counsel to wait for the other's approval. DB-65: When the legal info database is updated, the BLRB shall mirror the update to the Boomi Legal info backup database in case of errors /corruption.	Home/bot page Edit mode page	homeDisplay() editList() disclaimerDisplay()	1. Create test case for positive scenario with accurate responses. 2. Create test case for negative scenario with inaccurate responses. 3. Create test case for positive scenario with the removal of legal answer. 4. Create test case for negative scenario with the removal of a legal answer. 5. Create test case for positive scenario with the disclaimer. 6. Create test case for negative scenario with submission of changes. 7. Create test case for positive scenario with mirrored databases. 8. Create test case for negative scenario with mirrored databases.
DB-46: If the user clicks the view all questions button, then the BLRB shall display all current legal questions/answers.	DB-17: As a Account Receivable, I want relatively available legal information to access and navigate on my own so that the business process is more efficient.	Home/bot page View question page	questionListView()	1. Create a test case for the positive scenario with the "view all question button". 2. Create test case for negative scenario with the "view all question button".
DB-41: Once the user is logged in, the BLRB shall prompt the user within 6 seconds to input a question. DB-44: When a legal question is entered, the BLRB shall display a correct legal response within 10 seconds.	DB-18: As a Sales Engineer, I want quick access to legal information so that I don't need to communicate with the legal team in person. DB-19: As a Account Executive, I want a tool for quick legal information so that the legal team can focus on more substantive and critical issues.	Login page Home/bot page	login() responseBot()	1. Create test case for positive scenario with valid prompt time frame. 2. Create test case for negative scenario with invalid prompt time frame.
	DB-20: As a Legal Counsel, I want the response bot to provide stakeholders with reliable	Edit mode page	editList()	1. Create test case for positive scenario with accurate responses.

DB-43: BLRB shall permit legal counsels to update legal answers to avoid inaccurate responses.	<p>answers to questions that would otherwise need to come from a lawyer so that more time-sensitive and critical issues could be dealt with.</p> <p>DB-61: If the legal counsel submits a change to the list of legal questions, then the BLRB shall prompt the legal counsel if a submission issue occurs.</p> <p>DB-62: If the legal counsel submits a change to the list of legal questions without any issues, then the BLRB shall prompt the legal counsel to wait for the other's approval.</p>			2. Create test case for negative scenario with inaccurate responses.
1. User access to third-party products involved with Dell Boomi	DB-57: The BLRB shall allow users to search for third-party products involved with Dell Boomi to depict correct legal information.	Home/bot page	thirdPartyList()	<p>1. Create test cases for positive scenarios with the search for third-party products.</p> <p>2. Create test case for negative scenario with the search for third-party products.</p>
1. User feedback	DB-49: When the user is logged in, the BLRB shall allow users to provide feedback to the BLRB to improve bot interaction.	Home/bot page	feedback()	<p>1. Create test case for positive scenario with user feedback.</p> <p>2. Create test case for negative scenario with user feedback.</p>
1. Create consistency in answers and resolutions	<p>DB-46: If the user clicks the view all questions button, then the BLRB shall display all current legal questions/answers.</p> <p>DB-47: BLRB shall permit legal counsels to remove legal answers to abide by current Boomi standards.</p> <p>DB-56: The BLRB shall provide a disclaimer about the legal information.</p> <p>DB-20: As a Legal Counsel, I want the response bot to provide stakeholders with reliable answers to questions that would otherwise need to come from a lawyer so that more time-sensitive and critical issues could be dealt with.</p>	<p>Home/bot page</p> <p>View question page</p> <p>Edit mode page</p> <p>Counsel question view page</p>	<p>homeDisplay()</p> <p>editList()</p> <p>disclaimerDisplay()</p> <p>counselListDisplay()</p>	<p>1. Create test case for positive scenario with consistency in answers and resolutions.</p> <p>2. Create test cases for negative scenarios with inconsistency in answers and resolutions.</p>
1. Reduce busywork	<p>DB-17: As a Account Receivable, I want relatively available legal information to access and navigate on my own so that the business process is more efficient.</p> <p>DB-19: As a Account Executive, I want a tool for quick legal information so that the legal team can focus on more substantive and critical issues.</p> <p>DB-20: As a Legal Counsel, I want the response bot to provide stakeholders with reliable answers to questions that would otherwise need to come from a lawyer so that more time-sensitive and critical issues could be dealt with.</p>	<p>Home/bot page</p> <p>View question page</p> <p>Edit mode page</p>	<p>homeDisplay()</p> <p>questionListView()</p> <p>editList()</p>	<p>1. Create test case for positive scenario with reduced busywork when using the BLRB compared to current processes.</p> <p>2. Create a test case for the negative scenario with the BLRB increasing busywork.</p>
1. Advance customer interaction/Allocate resources to imperative deals	DB-20: As a Legal Counsel, I want the response bot to provide stakeholders with reliable answers to questions that would otherwise need to come from a lawyer so that more time-sensitive and critical issues could be dealt with.	<p>Counsel question view page</p> <p>Edit mode</p>	<p>counselListDisplay()</p> <p>editList()</p>	<p>1. Create test case for positive scenario with the BLRB allocating resources to imperative deals thus improving customer interaction.</p> <p>2. Create a test case for the negative scenario with the BLRB limiting resources to imperative deals thus</p>

4. Verification

Key	Summary	Verification Approach
DB-65	When the legal info database is updated, the BLRB shall mirror the update to the Boomi Legal info backup database in case of errors/corruption.	Analysis
DB-64	If a legal counsel clicks the edit question button, then BLRB shall display the edit mode page within 30 seconds.	Inspection
DB-63	The BLRB shall share the account information database with the Dell hub for single sign-on capabilities.	Analysis
DB-62	If the legal counsel submits a change to the list of legal questions without any issues, then the BLRB shall prompt the legal counsel to wait for other's approval.	Demonstration
DB-61	If the legal counsel submits a change to the list of legal questions, then the BLRB shall prompt the legal counsel if a submission issue occurs.	Demonstration
DB-60	The BLRB shall allow users to access the Dell Hub through the BLRB home page.	Inspection
DB-59	If the user does not provide the correct login information, then the BLRB shall prompt the user to enter valid login information.	Demonstration
DB-58	Every three months, the BLRB shall prompt the user to update/change their password to maintain user security.	Analysis
DB-57	The BLRB shall allow users to search for third-party products involved with Dell Boomi to depict correct legal information.	Demonstration
DB-56	The BLRB shall provide a disclaimer about the legal information.	Inspection
DB-50	While the user is logged in, the BLRB shall respond to any number of question entries.	Test
DB-49	When the user is logged in, the BLRB shall allow users to provide feedback to the BLRB to improve bot interaction.	Inspection
DB-48	The BLRB shall prevent unauthorized access.	Analysis
DB-47	BLRB shall permit legal counsels to remove legal answers to abide by current Boomi standards.	Test
DB-46	If the user clicks the view all questions button, then the BLRB shall display all current legal questions/answers.	Test
DB-45	When a legal question is not found, the BLRB shall display legal department contact information within 10 seconds.	Inspection
DB-44	When a legal question is entered, the BLRB shall display a correct legal response within 10 seconds.	Inspection
DB-43	BLRB shall permit legal counsels to update legal answers to avoid inaccurate responses.	Test
DB-42	When the user is not logged in, the BLRB shall display a login screen for username and password.	Demonstration
DB-41	Once the user is logged in, the BLRB shall prompt the user within 6 seconds to input a question.	Inspection

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5. Appendices

5.1 Assumptions and dependencies -

- This software will only be used between Dell Technologies departments.
- Commonly asked questions will be gathered and set before the response bot is deployed. Those questions can be updated, and new questions added, periodically.
- The bot will not include out-of-the-scope questions, including those that do not lend themselves to straightforward and consistent answers. Those more complex questions will continue to be fielded and handled by the legal department.
- The software will be built on current systems used by the department to ease the transition.
- This software will be managed and updated from time to time by the Dell Boomi legal team, and only be used internally as a resource between Dell Technologies departments. (This is a HUGE assumption as to what will occur if the program crashes, has bugs, invalid entries within the database, etc. {This is a topic to be talked about later}).
- BLRB will only be used by Boomi personnel.
- BLRB will be written in one of three programming languages Java, C++, or Python.

- BLRB updates will occur during a certain time frame.
- BLRB will be used across all platforms.
- BLRB can be used on any device.

5.2 Acronyms and abbreviations -

DBOU - Dell Boomi Use

DBO - Dell Boomi

iPaaS - Integration Platform as a Service

SaaS - Software as a service