

# Intelligent Contracts Workshop Guide

## Contents

AI Ladder & ModelOps .....	2
Intelligent Contracts Workshop Scenario .....	2
[ADD STUARTS CONTENT HERE] .....	2
Watson Discovery Contracts Intelligence Workshop.....	2
Watson Discovery Data Flow (top) .....	2
Demo Setup .....	3
Demonstration (Discovery Enterprise Edition, with Contract Analysis) .....	6
Demonstration (Discovery Plus Edition) .....	10
Using Watson Studio With Watson Discovery To Build And Deploy a Contract Success AI Model.....	13
Required software, access, and files.....	14
Download These Files From Git .....	15
Required skills .....	16
Step 1: Import Intelligent-Contracts.zip As New IBM Watson Studio Project.....	16

## AI Ladder & ModelOps

(top)

IBM Cloud Pak For Data provides a stack of capabilities broken down into these 4 areas known as the AI Ladder.

ModelOps is an end to end process for developing and deploying data science assets to production that are monitored for bias.

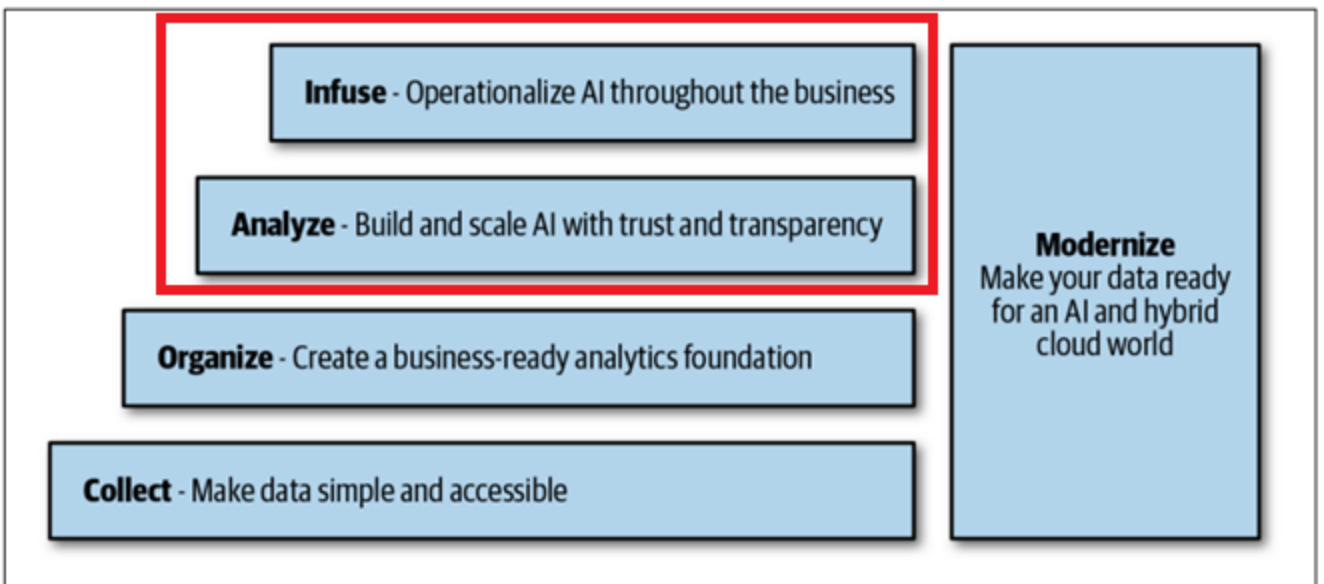


Figure 1 AI Ladder - Collect, Organize, Analyze, and Infuse AI into downstream applications.

## Intelligent Contracts Workshop Scenario

(top)

In this workshop, we'll learn how to **infuse** an AI deployed model in an automated business workflow to gain prescriptive suggestions improving the likelihood of contract success.

We'll be using IBM Watson Studio, to **analyze**, build, test and deploy the machine learning models built on structured and unstructured data used to score contracts and make prescriptive suggestions.

Using Watson Discovery, we'll see how we extracted and merged unstructured textual concepts coming from many contracts with structural contract data to improve the accuracy of our AI model.

[ADD STUARTS CONTENT HERE]

## Watson Discovery Contracts Intelligence Workshop

(top)

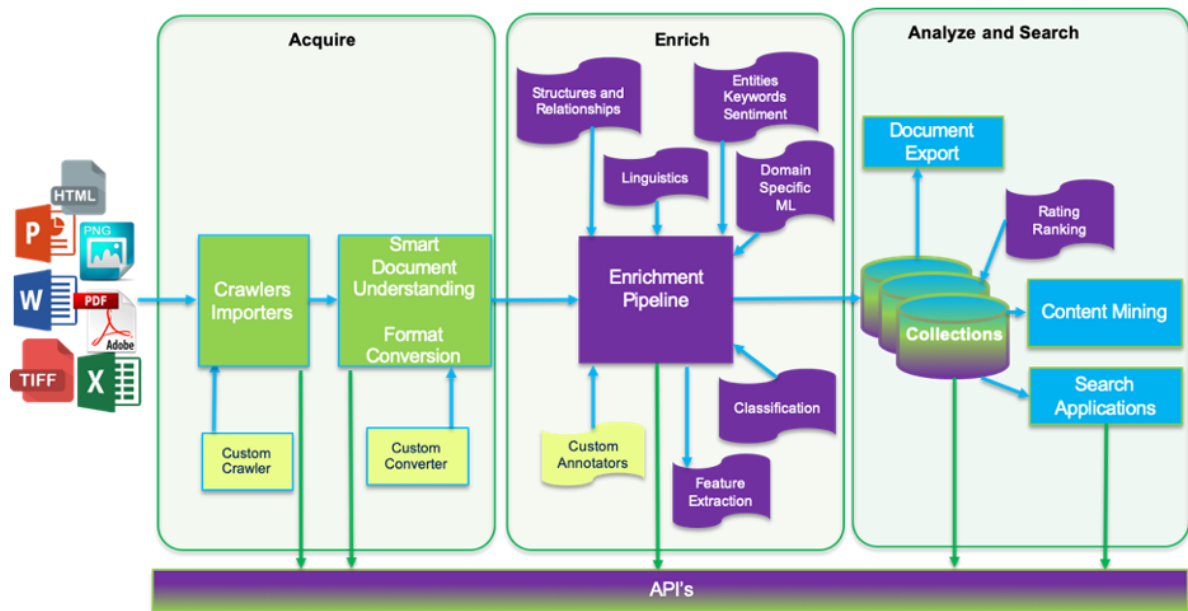
Watson Discovery Data Flow [\(top\)](#)

Watson Discovery provides multiple methods of acquiring and enriching documents of various type. In the diagram below you can see three phases Acquire, Enrich, Analyze and Search.

In the Acquire stage, data is ingested from one or more data sources, stripped of unnecessary content (such as graphics and formatting) and then passed to the Enrich stage.

In the Enrich stage, the data (typically a mix of structured and unstructured text) is processed using techniques such as Natural Language Processing and Machine learning to provide meaning and context to the raw text. This enriched data is stored as a Collection.

The Analyze and Search stage uses the enriched data from one or more Collections to conduct discovery and exploration or to enable expert assistance through search-based applications.




Watson Discovery uses Natural language queries as well as structured queries to find relevant results using passages and highlights across data that has been enriched and ingested. In this particular demo the data ingested is a small number of procurements contracts. We have chosen to apply a pre-built Contracts Intelligence enrichment model during ingestion in order to leverage Watson's understanding of contractual data.

## Demo Setup

(top)

NOTE: This use case demonstration calls for Watson Discovery Enterprise Edition to be licensed and used for the purpose of the "Contract Analysis" feature. However, the workshop includes setup and demonstration instructions for the Plus Edition as well if you cannot access the Enterprise Edition.

1. Install Watson Discovery through the Cloud Services Catalog. <https://cloud.ibm.com/>
2. Once you have launched the Discovery Tooling, look to the right of the initial Project screen for the  icon and click on it.

3. Enter a Project name (Contracts Intelligence), Select the “Document Retrieval” project type. Then check the box for “Working with Contracts”. Click Next

NOTE: If you do not have an Enterprise license, then the “Working with Contracts” option will not be available, and you should just continue with the steps outlined below. The optional demo for this will outline steps for a demonstration without the Contracts Model being used

IBM Watson Discovery Enterprise My projects Share feedback Guided tours

Select project type Select data source Connect to data Configure collection

What type of project are you working on?

Project name  
Contracts

Project type

**Document Retrieval**  
Search and find the most relevant answers from your data.

**Conversational Search**  
Supply answers to a virtual agent built with IBM Watson Assistant.

**Content Mining**  
Discover hidden insights, trends, and relationships in your data.

☐ None of the above – I'm working on a custom project

Working with contracts?  
Let us do the heavy lifting. Watson Discovery can automatically classify parties, amendments, dates, terms, and much more. [Learn more](#)

☒ Apply contracts enrichment ⓘ

Next →

4. Now select “Upload data”, then click Next.

Select project type Select data source Connect to data Configure collection

OK, where is your data?

Salesforce SharePoint Online SharePoint On Prem Box Web crawl

IBM Cloud Object Storage Upload data

[Reuse data from an existing collection](#)

Don't see the data source you need?  
[Let us know](#)

Next →

5. Name you collection something unique, open the “More processing settings” options drop down and ensure the OCR option is enabled. (some of the content is scanned as an image, so this will enable us to pull out text). Click Next

Select project type

Select data source

Configure collection

Let's create a collection for your data

General

Data source

Upload data

Collection name

Procurement Data

Collection language

English

Syncing FAQ Content?

Beta

Extract pairs of questions and answers automatically from FAQs (frequently asked questions). Your application can use the extracted pairs to give more precise results.

☐ Apply FAQ extraction

More processing settings

Apply optical character recognition (OCR)

On

Back

Next

- Now, download the content found in the github repository for this workshop to your computer and then unzip into a local folder...This should give you 6 documents.

You can either click and drag the docs from a folder or click within the box to open a local file explorer popup. Then click Finish in the bottom right corner of the screen.

Select project type

Select data source

Configure collection

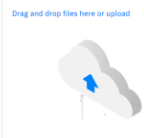
Let's create a collection for your data

Upload your data

Upload files

Max file size is 10MB. Supported file types are PDF, HTML, JSON, Word, Excel, PowerPoint, PNG, TIFF, JPG, GIF, TXT, CSV, ZIP, GZIP, TAR.

Drag and drop files here or upload



Contracts

setlence-its-base-agreement-49130167761.pdf

p-mta-english-v1\_3-id-4909035125\_0.pdf

Art Effects Koya Creative Base TSA 2008.pdf

stanfield-4912049674-tsa.pdf

0-master-agreement-4905cm0029.pdf

Epicor-ERP-Manufacturing-Overview-BR-ENS.pdf

Trademark License Agreement.pdf

Legal - Apple Media Services - Apple.pdf

Terms of Service - FIFA.com.pdf

Art\_Effects\_Koya\_Creative\_Base\_TSA\_2008.rev.pdf

Options

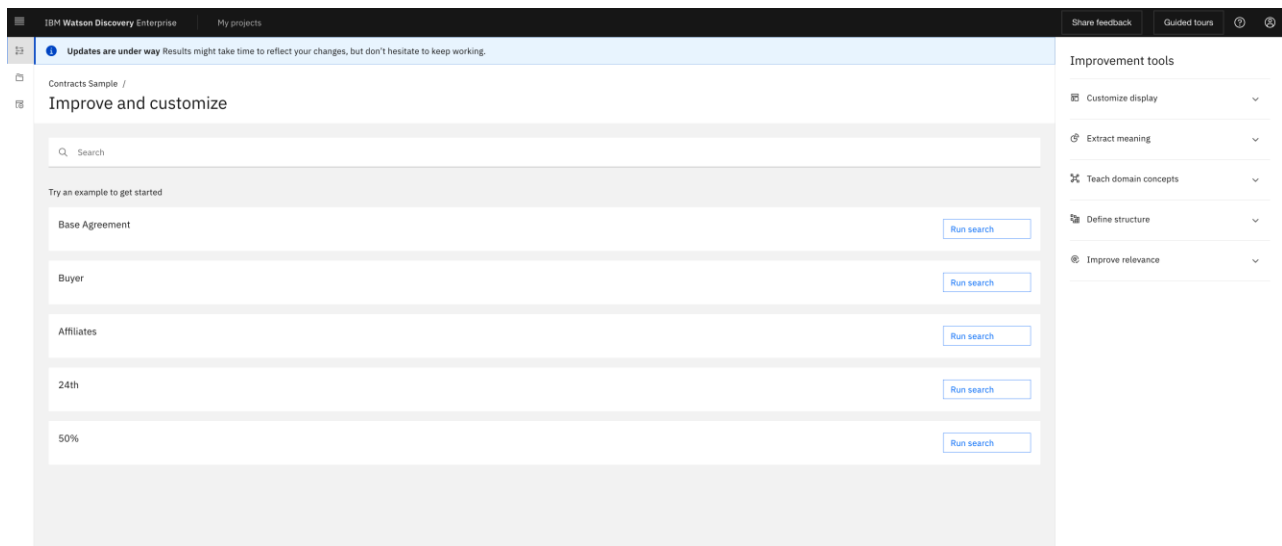
Cancel

Open

Back

Finish

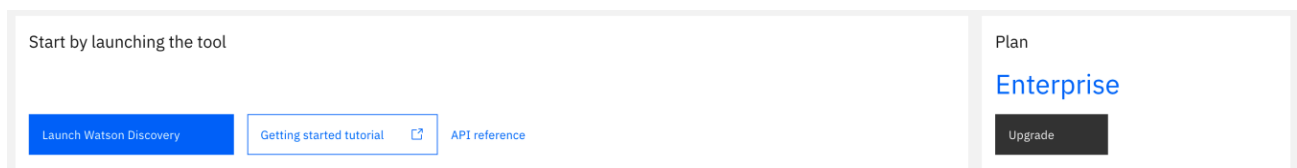
Once the data has loaded, you will see the following screen, which indicates the data has successfully loaded and is ready for the demonstration.



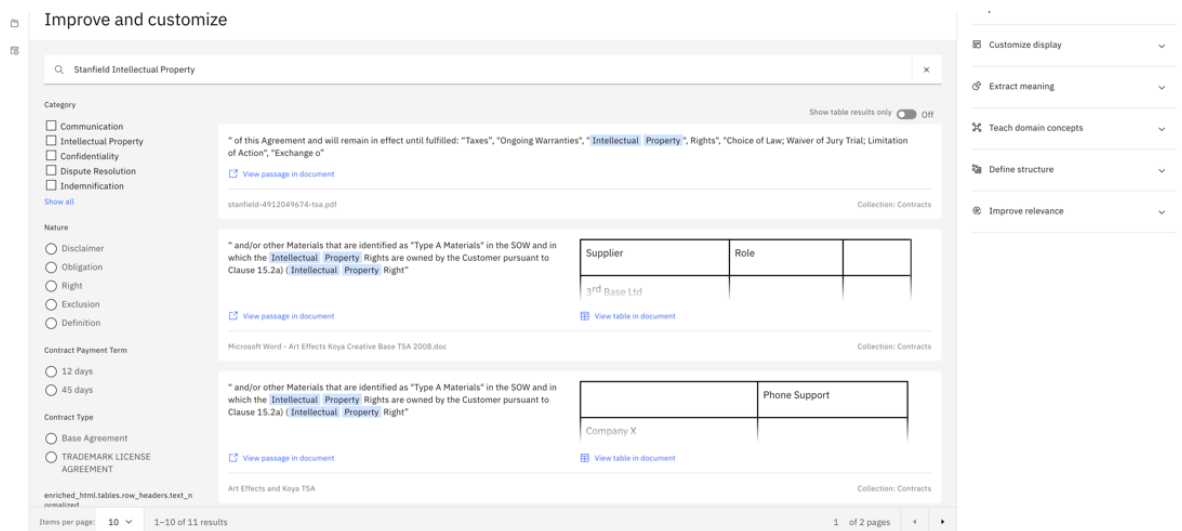
## Demonstration (Discovery Enterprise Edition, with Contract Analysis)

(top)

1. Launch Watson Discovery Tooling from Services and Software Resource List in [ibm.cloud.com](https://ibm.cloud.com).



2. Select the **Contract Intelligence** Project from the **My Projects** list. You will now be in the **Improve and customize** panel of Discovery Tooling and ready to demo.
3. In the search box enter **Stanfield Intellectual Property** as the query.



In the return results you will see that not only results have been displayed, but also enriched structure from the document now exists in order to use for digging deep into the exact areas of the contract we are interested in.

4. Click on **view passage in document** for the first result in the list. This will show the natural understanding of the concept we queried highlighted within the original document.

Document preview

stanfield-4912049674-tsa.pdf

10 / 11 pages

Technical Services Agreement

Agreement # 4912049674

services. Buyer will independently establish prices for resale of Deliverables or Services and is not obligated to announce or market any Deliverables or Services and does not guarantee the success of its marketing efforts, if any.

13.9 Force Majeure

Neither party will be in default or liable for any delay or failure to comply with this Agreement due to any act beyond the control of the affected party, including other disputes, provided each party immediately notifies the other.

13.10 Obligations of Affiliates

Affiliates will acknowledge acceptance of the terms of this Agreement through the signing of a P/A before conducting any transaction under this Agreement.

13.11 Prior Communications and Order of Precedence

This Agreement supersedes any prior oral or written agreements or other communications between the parties with respect to the subject matter of this Agreement, including any confidential disclosure agreements. In the event of any conflict in these documents, the order of precedence will be:

1. the quantity, payment and delivery terms of the relevant W.A.
2. the relevant SOW
3. this Base Agreement; and
4. the remaining terms of the relevant W.A.

13.12 Record Keeping and Audit Rights

Supplier will maintain and provide to Buyer upon request relevant business and accounting records to support location under this Agreement and proof of payment records and professional fees, for a period of time as required by local law, but not for less than three (3) years following completion or termination of the relevant SOW and/or W.A. All accounting records will be maintained in accordance with generally accepted accounting principles.

13.13 Severability

If any term in this Agreement is found by competent judicial authority to be unenforceable in any respect, the validity of the remainder of this Agreement will be unaffected, provided that such unenforceability does not materially affect the parties' rights under this Agreement.

13.14 Supplier Conduct Principles

Supplier will comply with the Supplier Conduct Principles Letter Agreement ("SCPLA") and the terms and conditions of the SCPLA, as applicable to this Agreement.

13.15 Survival

The provisions of this Agreement and the following Sections and Subsections of this Base Agreement will survive after termination or expiration of this Agreement and will remain in effect until full payment of all amounts due to Buyer, including but not limited to: "Choice of Law," "Waiver of Jury Trial," "Limitation of Action," "Exchange of Information," and "Prior Communications and Order of Precedence."

13.16 Waiver

An effective waiver under this Agreement must be in writing signed by the party waiving its right. A waiver by either party of any term of the other party's noncompliance with any obligation or responsibility under this Agreement will not be deemed a waiver of subsequent noncompliance.

14.0 Criminal Background Checks

(a) To the extent permitted by local law, Supplier will:

1. obtain from all Supplier Personnel photographic proof of identity from an official government source (including but not limited to documentation such as a valid driver's license or government issued passport) and retain copies thereof;
2. to the extent permitted by local law, submit this proof to Supplier Personnel being assigned to perform services under this Agreement or Buyer's or Customer's premises. Supplier Personnel will participate in a criminal background check covering the jurisdictions (including but not limited to all counties or states (whichever is more comprehensive), countries (this would

Details

File name  
stanfield-4912049674-tsa.pdf

File type  
pdf

Collection  
Contracts

Open advanced view

5. Click on **Open advanced view** in the bottom right of the window. This is a Contracts specific User Interface designed to expose the full gambit of the Contracts Intelligence. You can see in this screen, we now have more structured enrichments that have been exposed from the specific document.
6. Click on the **Category, Intellectual Property**.

stanfield-4912049674-tsa.pdf

Contract Data Document

stanfield-4912049674-tsa.pdf

1 / 44

Filters

- ☐ Asset Use
- ☐ Assignments
- ☐ Audits
- ☐ Business Continuity
- ☐ Communication
- ☐ Confidentiality
- ☐ Deliverables (2)
- ☐ Delivery
- ☐ Dispute Resolution
- ☐ Indemnification (1)
- ☐ Insurance
- ☒ Intellectual Property (44)
- ☐ Liability (2)
- ☐ Order of Precedence
- ☐ Payment Terms & Billing (3)
- ☐ Pricing & Taxes
- ☐ Privacy
- ☐ Responsibilities
- ☐ Safety and Security
- ☐ Scope of Work
- ☐ Term & Termination (1)
- ☐ Warranties (4)

Nature

- ☐ Definition (3)
- ☐ Disclaimer (1)
- ☐ Exclusion (2)

"Affiliates" means entities that control, are controlled by, or are under common control with, a party to this Agreement.

"Agreement" means this Base Agreement and any relevant Statements of Work ("SOW"), Work Authorizations ("WA"), and other attachments or appendices specifically referenced in this Agreement.

"Business Partner Agreement" means an agreement executed between Buyer and Supplier to promote, market, and support certain products and services.

"Customer" means Buyer's customer.

"Deliverables" means items that Supplier prepares for or provides to Buyer or Customer as described in a SOW and/or WA.

Deliverables include Developed Works, Preexisting Materials, and Tools.

**"Developed Works" means all work product (including software and its Externals) developed in the performance of this Agreement as described in a SOW and/or WA.** Developed Works do not include Preexisting Materials, Tools, or items specifically excluded in a SOW and/or WA.

"Electronic Self-Help" means a process where Supplier electronically disables, removes, or otherwise prevents the use of its software product without the Buyer's or Buyer's Customer's cooperation or consent. Electronic Self-Help could be done through electronic or other means (for example: remotely through "back doors" or hidden entrances in the software or through hidden shut-down commands in the software that can be activated by phone or in other ways).

"Externals" means any pictorial, graphic, audiovisual works, reports or data generated by execution of

Details

Categories  
Intellectual Property

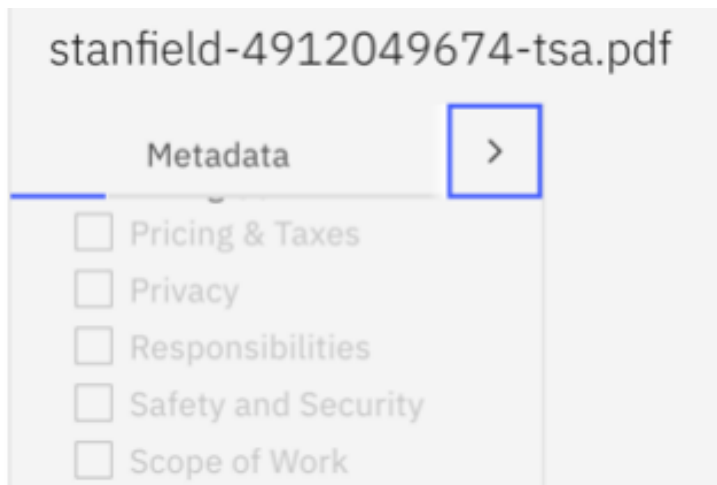
Types  
Nature: Definition, Party: None

Attributes  
[Defined Term \(1\)](#)

Now every concept from the contract around Intellectual Property has been identified and highlighted in the document. You can use the top navigation to jump from highlighted passage to highlighted passage.

This shows that we have successfully identified the concept of Intellectual Property as an enrichment in the document, which will be crucial as a predictive field with our Machine learning model in Watson Studio.

7. With Intellectual Property still selected, now click on the **Buyer** radio button under the **Party** category. We have now intersected the one area in the contract where Intellectual Property is discussed in regards to the Buyer.
8. Other metadata is extracted as well and can be used to enrich models built with Machine Learning. Click on the **Metadata** tab above the categories.



This will expose other metadata, such as the effective date of the contract.



Contract Data

Document

stanfield-4912049674-tsa.pdf

<

1 / 1

>

<

Metadata

Effective dates

2012-06-16

Contract types

Base Agreement

Base Agreement

Parties

INTERNATIONAL BUSINESS MACHINES (Buyer) (2)

STANFIELD SYSTEMS (Supplier) (2)

GLOBAL TECHNICAL SERVICES COUNCIL (1)

Addresses

3039 Cornwallis Road

Raleigh, NC 27709-2195

This Base Agreement ("Base Agreement") between International Business Machines Corporation ("Buyer") and Stanfield Systems Incorporated ("Supplier") establishes the basis for a multinational procurement relationship under which Supplier will provide Buyer the Deliverables and Services described in SOWs and/or WAs issued under this Base Agreement. This Base Agreement is effective from **June 16, 2012** ("Effective Date") and will remain in effect until

terminated.

1.0 Definitions

"Affiliates" means entities that control, are controlled by, or are under common control with, a party to this Agreement.

"Agreement" means this Base Agreement and any relevant Statements of Work ("SOW"), Work Authorizations ("WA"), and other attachments or appendices specifically referenced in this Agreement.

"Business Partner Agreement" means an agreement executed between Buyer and Supplier to promote, market, and support

certain products and services.

"Customer" means Buyer's customer.

"Deliverables" means items that Supplier prepares for or provides to Buyer or Customer as described in a SOW and/or WA.

Deliverables include Developed Works, Preexisting Materials, and Tools.

"Developed Works" means all work product (including software and its Externals) developed in the performance of this Agreement as described in a SOW and/or WA. Developed Works do not include

9. You can also add custom enrichments assisted by Watson AI through the Discovery tooling as well. Click on the [/ Improve and customize /](#) hyperlink located at the top left of the window to go back into the main Improve and customize screen. On the right side, click on the **Teach Domain concepts**. This opens more AI assisted tools to further enrich you contracts data by adding custom Dictionary terms, extracting custom entities or even applying custom Machine Learning.

Improve and customize

Stanfield Intellectual Property

Category

Communication

Intellectual Property

Confidentiality

Dispute Resolution

Indemnification

Nature

Disclaimer

Obligation

Right

Exclusion

Definition

Contract Payment Term

12 days

45 days

Contract Type

Base Agreement

TRADEMARK LICENSE AGREEMENT

enriched\_html.tables.row\_headers.text\_normalised

Items per page: 5

1-5 of 11 results

1 of 3 pages

of this Agreement and will remain in effect until fulfilled: "Taxes", "Ongoing Warranties", "Intellectual Property", Rights", "Choice of Law; Waiver of Jury Trial; Limitation of Action", "Exchange of"

View passage in document

stanfield-4912049674-tsa.pdf

Collection: Contracts

"and/or other Materials that are identified as "Type A Materials" in the SOW and in which the Intellectual Property Rights are owned by the Customer pursuant to Clause 15.2a) (Intellectual Property Right"

View passage in document

Supplier	Role
3rd Base Ltd	

View table in document

Microsoft Word - Art Effects Koya Creative Base TSA 2008.doc

Collection: Contracts

"and/or other Materials that are identified as "Type A Materials" in the SOW and in which the Intellectual Property Rights are owned by the Customer pursuant to Clause 15.2a) (Intellectual Property Right"

View passage in document

Company X	Phone Support

View table in document

Art Effects and Koya TSA

Collection: Contracts

Customize display

Extract meaning

Teach domain concepts

Dictionaries

Patterns

Extract entities

Regular expressions

Classifiers

Machine learning

Advanced rules models

Define structure

Improve relevance

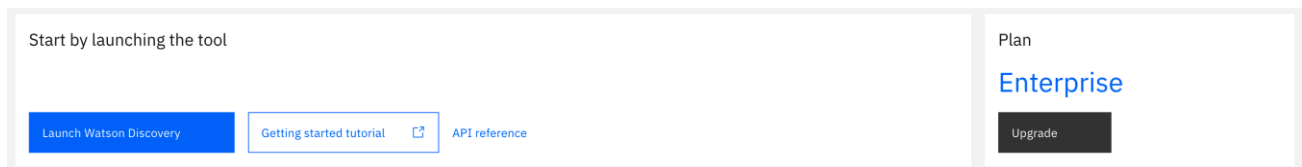
Now that we have shown how we can enrich unstructured content, Watson Studio will be used to leverage existing data fields as well as the newly extracted Watson Discovery enrichment fields to create predictive models.

## Demonstration (Discovery Plus Edition)

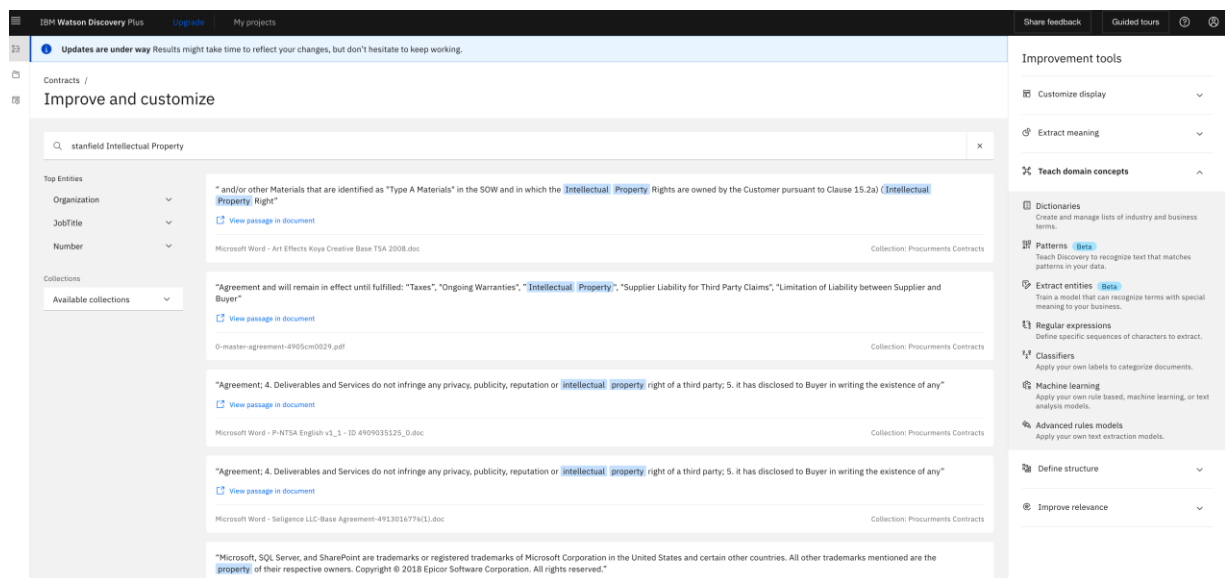
(top)

This alternative Demonstration will rely on a custom field being created as the pre-trained Contracts enrichments are not available. This path can also be shown in addition to the above path to illustrate the fact that customized fields can also be added to the pre-trained models in Discovery.

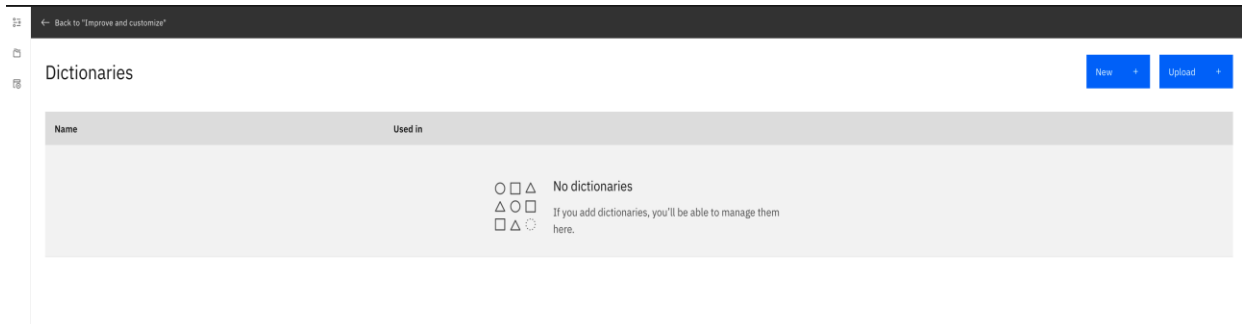
1. Launch Watson Discovery Tooling from Services and Software Resource List in [ibm.cloud.com](https://ibm.cloud.com).



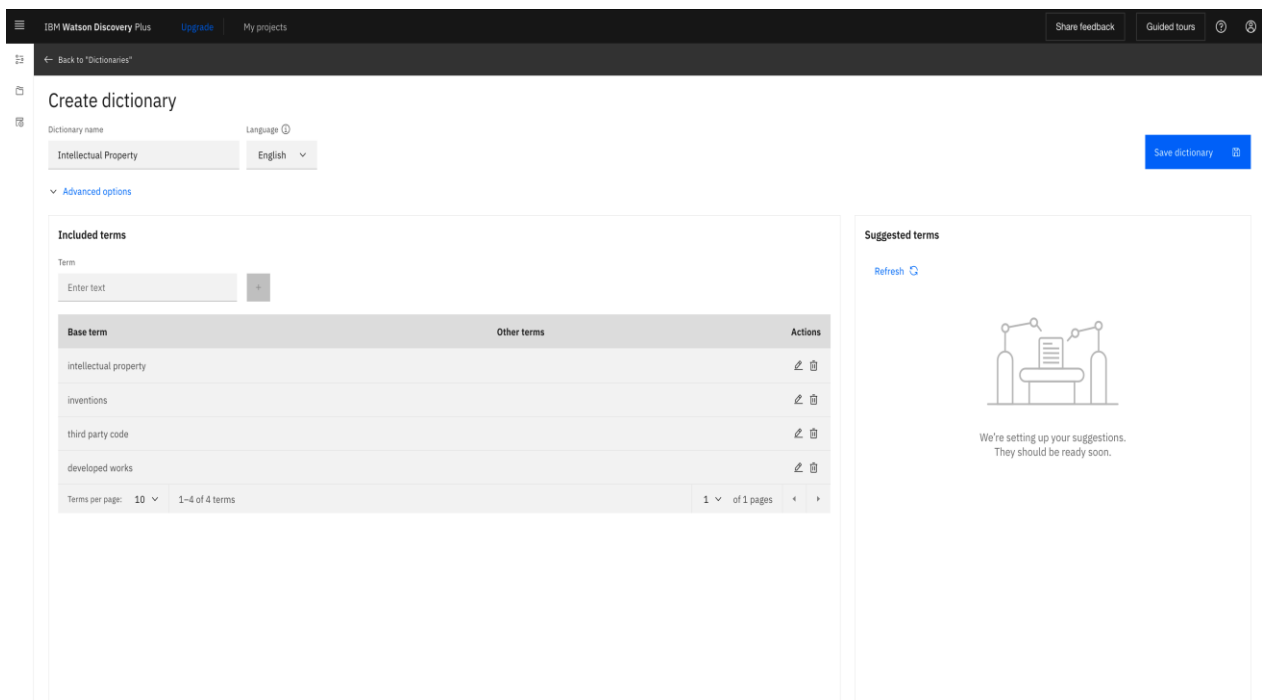
2. Select the **Contract Intelligence** Project from the **My Projects** list. You will now be in the **Improve and customize** panel of Discovery Tooling and ready to demo.
3. In the search box enter **Stanfield Intellectual Property** as the query. Notice the Entities being displayed on the left. Since we do not have a pre-trained contracts model listing of entities, we will need to show how we can easily start building a custom entity to easily find the concept of intellectual property.



4. On the right side of the screen open the “Teach Domain Concepts” drop down. Now click on the “Dictionaries” option.



Now, click on “New”, then enter the Dictionary name as, “Intellectual Property”. For the included terms, enter...intellectual property, inventions, third party code, and developed works. Lastly, click on the “Save Dictionary” located in the upper right corner of the screen.



5. Now click on the field to which this enrichment will be applied to. In our case, click “text”.

Where would you like this enrichment to be applied?

Procurements Contracts

Fields to enrich

1

×

Selected fields

^

☐

table

☐

table\_of\_contents

☒

text

☐

text

tle

Cancel

Apply

- The goal is to create an enriched field to be extracted from the unstructured text. Once this has been saved, you will notice a popup that mentions re-processing of the collection has started. It will take a few minutes for the collection to be refreshed with the new field we just created. So, in the meantime, go back to the “Back to Improve and Customize” screen by clicking on the hyperlink in the upper lefthand corner of the screen.

← Back to "Improve and customize"

Dictionaries

New

+

Upload

+

Name	Used in	
Intellectual Property	Procurements Contracts	<div></div> <div></div> <div></div>

Once the processing has finished and enter a query, you should see the following screen, which contains our newly created field of intellectual property. This shows that we have successfully identified the concept of Intellectual Property as an enrichment in the document, which will be crucial as a predictive field with our Machine learning model in Watson Studio.

<input type="text" value="Search"/>	
Top Entities	
intellectual_property ^	
<input type="checkbox"/> intellectual property	
<input checked="" type="checkbox"/> inventions	
<input type="checkbox"/> third party code	
JobTitle v	
Organization v	
Number v	
Collections	
Available collections v	
<p>"..... - sa _ \ . : . _ _ f , N... _ _ _ L , _ _ _ _ _ , a H H _ T , _ _ _ _ _ g 4 _ _ _ _ _ &amp; x , _ _ Epicor ERP enables manufacturers to grow, innovate, and compete in today's ever-changing global landscape."</p> <p><a href="#">View passage in document</a></p> <p>Epicor-ERP-Manufacturing-Overview-BR-ENS-1018 <span>Collection: Procurments Contracts</span></p>	
<p>"Instructional or informational text is identified in italics and should be deleted prior to presentation to the Supplier. Language that is either optional or where text must be inserted will be underlined throughout the document (delete language or options that are not applicable)."</p> <p><a href="#">View passage in document</a></p> <p>Microsoft Word - P-NTSA English v1_1 - ID 4909035125_0.doc <span>Collection: Procurments Contracts</span></p>	
<p>"On 22 December 2008 ART EFFECTS LIMITED and Customer entered into an Information Technology Procurement Framework Agreement ("the Prime-Contract"). Buyer is seeking information technology services (and certain related services) for its business operations and to meet obligations in connection with transactions under the Prime-Contract."</p> <p><a href="#">View passage in document</a></p> <p>Microsoft Word - Art Effects Koya Creative Base TSA 2008.doc <span>Collection: Procurments Contracts</span></p>	
<p>"This Base Agreement ("Base Agreement") dated as of 09/20/2005 ("Effective Date"), between IBM ("Buyer") and Overland Entertainment ("Supplier"), establishes the basis for a multinational procurement relationship under which Supplier will provide Buyer the Deliverables and Services described in SOWs issued under this Base Agreement."</p> <p><a href="#">View passage in document</a></p> <p>O-master-agreement-4905cm0029.pdf <span>Collection: Procurments Contracts</span></p>	
<p>"This Base Agreement ("Base Agreement") between International Business Machines Corporation ("Buyer") and Seligence LLC ("Supplier") establishes the basis for a multinational procurement relationship under which Supplier will provide the Deliverables and Services described in SOWs and/or WAs issued under this Base Agreement."</p> <p><a href="#">View passage in document</a></p>	

You can even go further and show the exact type of Intellectual Property...

Clicking on one of the sub-entity types, will further slim down the results to show only the passages that contain that term. Try clicking “inventions”, which should yield one result.

Now that we have shown how we can enrich unstructured content, Watson Studio will be used to leverage existing data fields as well as the newly extracted Watson Discovery enrichment fields to create predictive models.

## Using Watson Studio With Watson Discovery To Build And Deploy a Contract Success AI Model

(top)

In our previous demo with Watson Discovery, we learned how it was able to provide Domain Concepts like “Intellectual Property” from many contractual documents.

When building our machine learning model to predict contact success, we're going to merge the unstructured concepts like "Intellectual Property" with the historical contract history to build and deploy a more robust machine learning model to predict contract success.

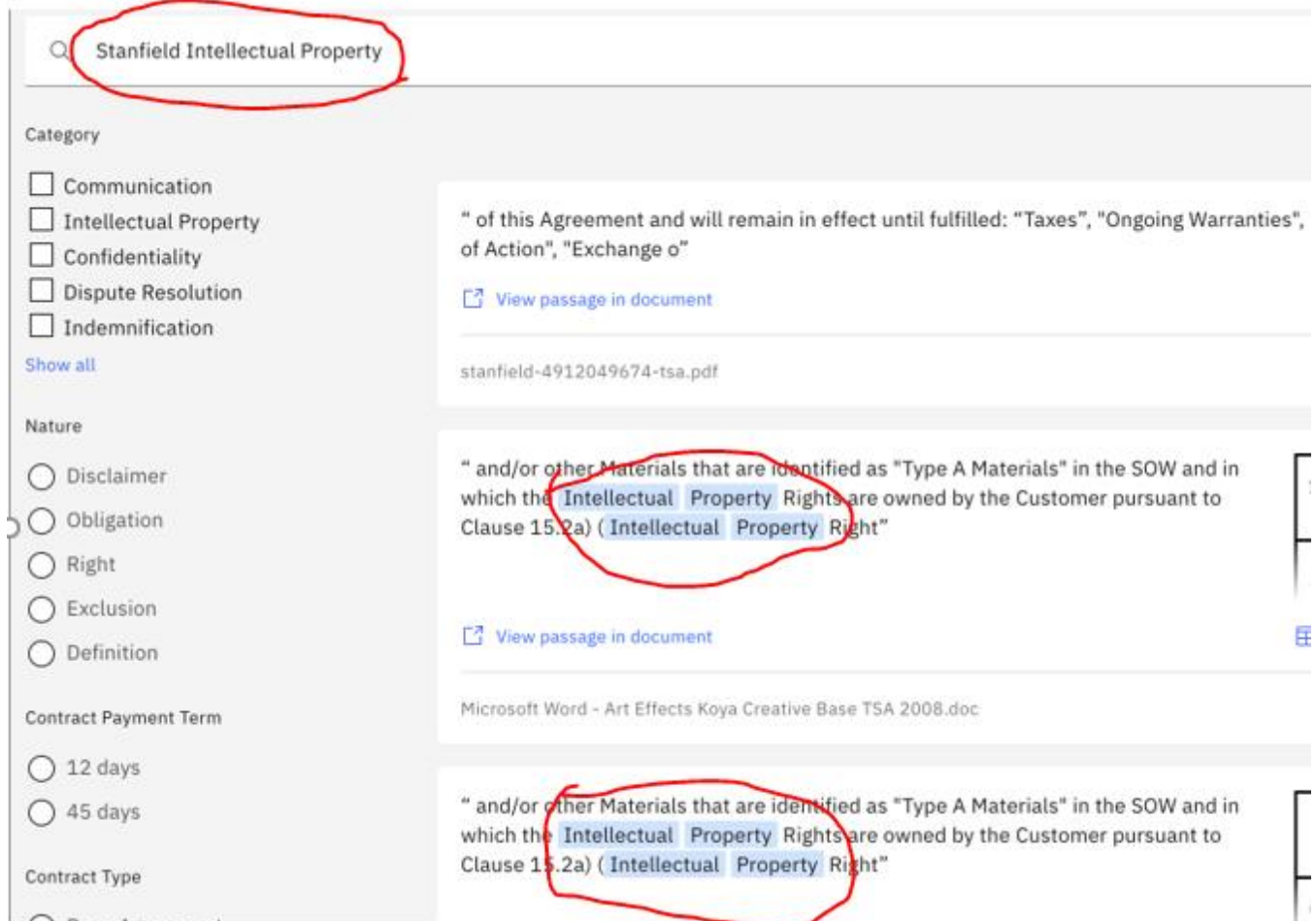
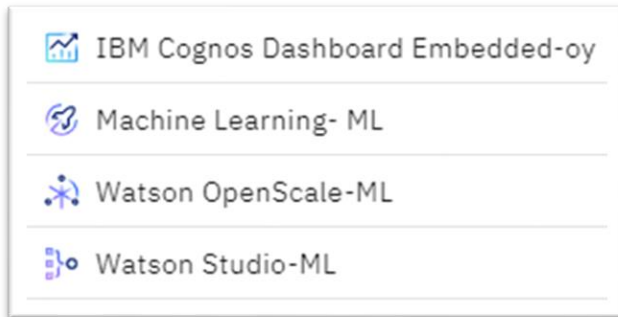



Figure 2 Example of using Watson Discovery To Uncover Common Categories

### Required software, access, and files (top)

1. To complete this lab, you will need a **Cloud Pak for Data as a Service (CPDaaS)** account:  
<https://dataplatfom.cloud.ibm.com>  
 If you don't have a CPDaaS account, use the same URL to sign up for a free trial. The account will be activated in approximately 5 minutes.
2. If you already have an **IBM Cloud** account, make sure that you provisioned the required services
  - a. **Watson Studio**
  - b. **Watson Machine Learning (WML)**
  - c. **Watson OpenScale**
  - d. **IBM Cognos Dashboard Embedded.**
3. Navigate to your *Resource list* in your **IBM Cloud** dashboard: <https://cloud.ibm.com/resources>
4. Check if the mentioned services are displayed under **Services**. If not, search for the services in the **Catalog** and add them.



NOTE: You will likely not have the same endings. (IE. '-oy' and '-ML')

5. Download the **project zip file** to your machine. It will be imported into a Cloud Pak For Data Project.
6. Please visit this [git repository](#) to download all the files for this workshop.
7.  Watch [this recording](#) before you proceed! It will step you through the demo in approx. 9 minutes.

## Download These Files From Git

(top)

### 1) **Intelligent-Contracts.zip**

Import this zip file when creating a new IBM Watson Studio Project

It will include the following project assets:

- 3 CSV files - Scored\_Contracts.csv, Contract\_Analysis.csv, Unscored\_Contracts.csv
- Python Notebook - ContractSuccessRandomForest-Py38 Using Sklearn - Using Open Source SkLearn Python with a Random Forest Model deployed to IBM Platform
- Modeler Flow - Build and deploy the same Python model without the need for coding
- Dashboard - Historical and Predictive Visualizations using structured and unstructured contract data
- Model - Contract Success Using AutoAI - P3 Snap Random Forest Classifier - This model was generated by AutoAI. We will deploy in the workshop.

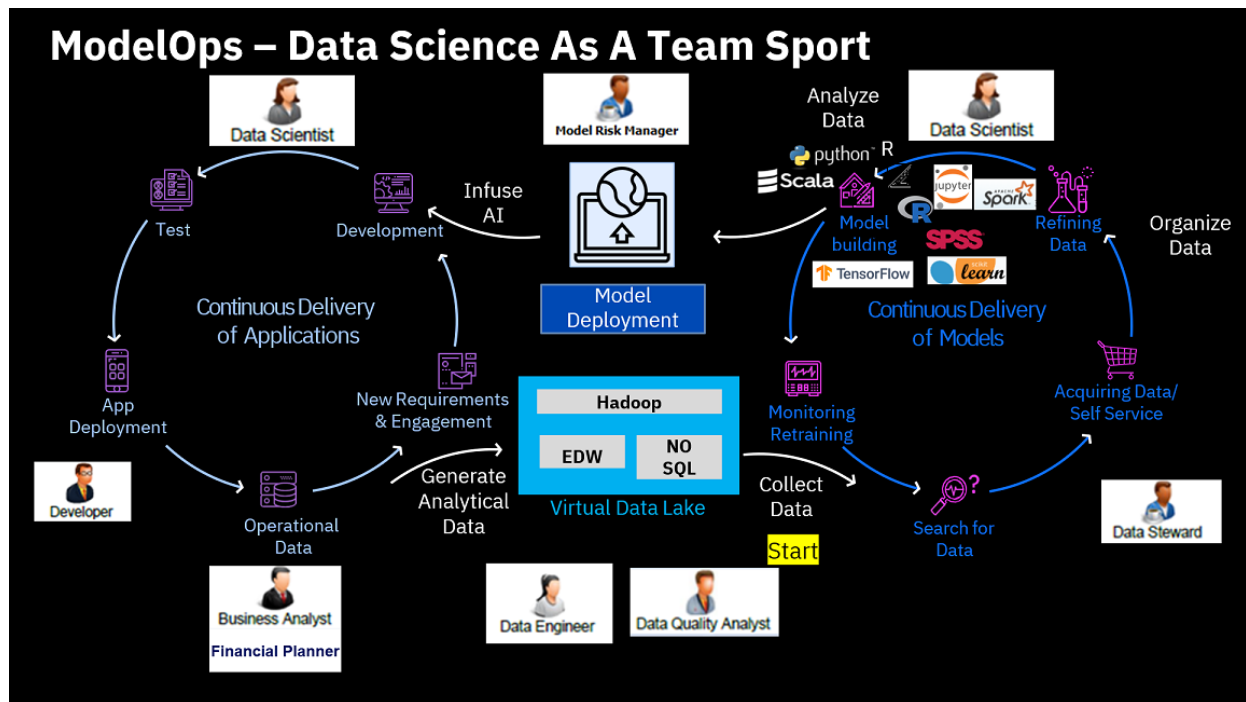
### 2) **Intelligent-Contracts-Workshop-Guide.pdf (CURRENT DOCUMENT)**

Use this step-by-step workbook to:

- Automate Contract Workflow (Ingestion, Analysis, Approvals)  
Uses Cloud Pak For Business Automation
- b) Enrich Intelligence Accuracy (Extracting Information from Contracts)  
Uses Cloud Pak For Data Watson Discovery
- c) Integrate Continuous Improvement (Infusing AI into the Operation)  
Uses Cloud Pak For Data Watson Studio

### 3) **data\_science\_modelops\_team\_sport.png**

ModelOps as a Team Sport image depicting all those involved in delivering AI models and how IBM has them all collaborate together on one platform.



#### 4) contracts.zip [Already used in previous workshop]

Sample contracts used in demo with Watson Discovery and used in the modelOps workflow.

#### 5) modelOpsForContractSuccess.mp4

A recording of the end to end modelOps demo.

#### 6) csv\_files.zip

(Optional) Start a new Project in Cloud Pak For Data, import these CSV files and create all the project assets yourself from scratch.

Watch the video as a guide.

#### 7)Trustworthy AI.mp4

(Optional) In this 9 minute recording, learn how IBM provides AI guardrails by monitoring key model metrics on and off our platform using OpenScale to avoid data bias or drift with model risk workflow to adhere to regulator guidelines like SR 11–7 that requires model risk management for all models in financial services using OpenPages.

#### 8)ContractSuccessRandomForest-Py38 Using Sklearn.ipynb

(Optional) Import this Python notebook using Open Source Sklearn and Random Forest Model.

### Required skills

(top)

We recommend that users who work through this lab:

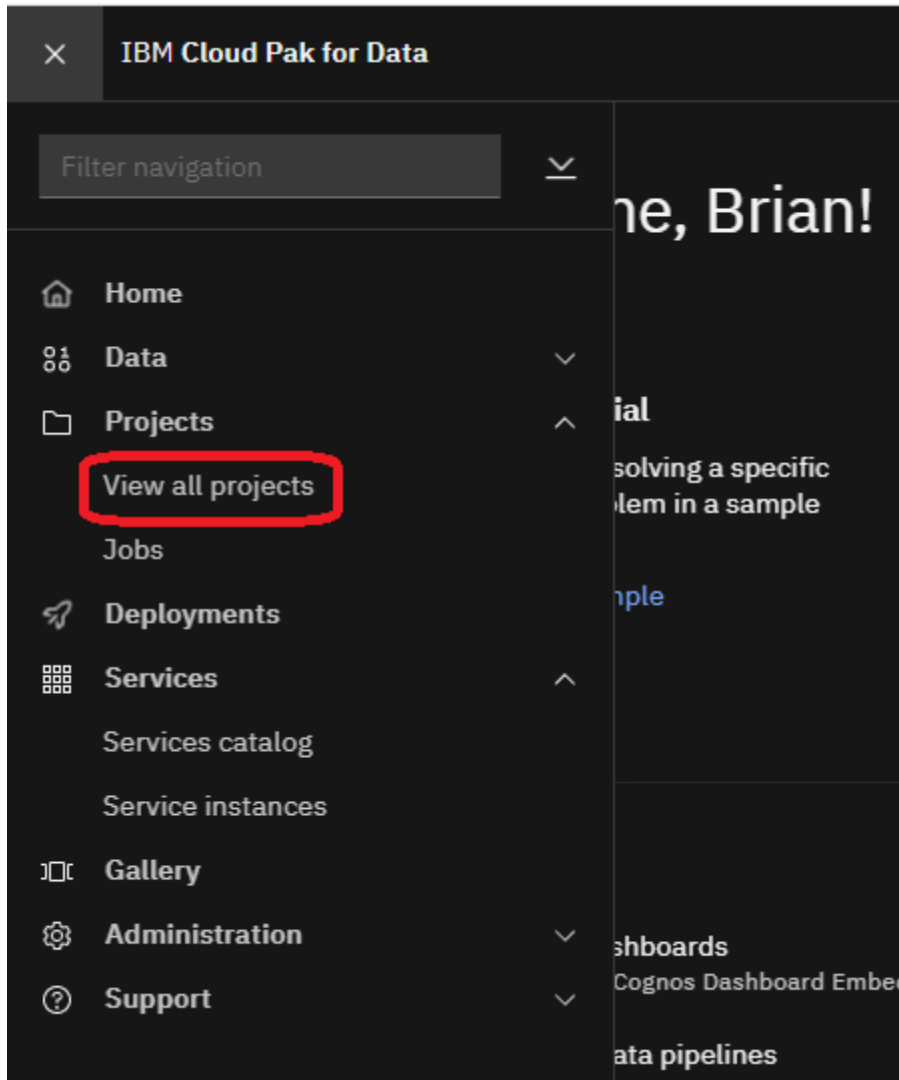
- Understand the data science model lifecycle
- Have at least beginner knowledge of different methods for creating models

### Step 1: Import Intelligent-Contracts.zip As New IBM Watson Studio Project

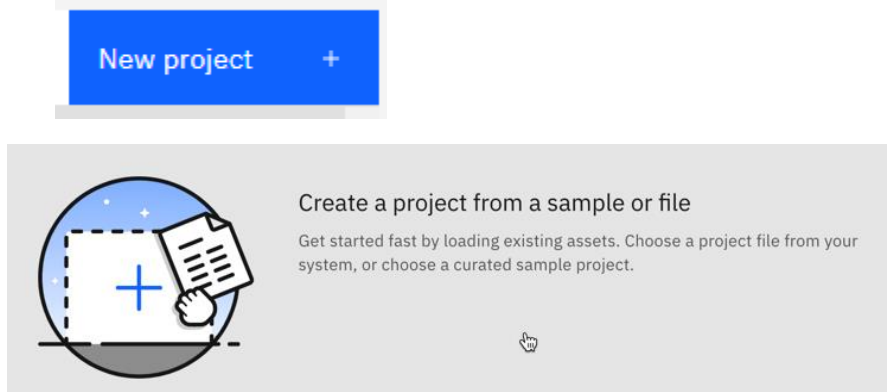
(top)



1. Sign into [Watson Studio](#). From the quick navigation on the left, select **Projects** → **View all projects**.



2. On the far right, click the **New project**, then select **Create a project from a sample or file**.



3. Drag the *project zip* file (downloaded from Git) from your machine to the **Upload file** section.  
Name your project **Intelligent Contracts**  
Select a **Cloud Object Storage** service  
Select **Dashboard Service** from the dropdown list  
Click **Create**.

- 4.