Oracle Intelligent Advisor

Release 20D Features and Benefits (November 2020)

V1.0
Program agenda

1. Overview of Intelligent Advisor
2. New features since last release
3. For more information
Program agenda

1. Overview of Intelligent Advisor
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Customers expect service that is

- simple
- accurate
- personalized
Which loan product is best for me?

Am I eligible for an upgrade? Can you recommend a product based on my needs?

Do I meet the language requirements for my course?

What is my new insurance premium based on my change in circumstances?

Am I eligible for compensation? If so, how much?

How much rental subsidy am I eligible for?

How is my bonus incentive calculated?
Intelligent Advisor

Empower organizations to delight customers with simple, insightful, transparent advice

Enable business experts to automate service experiences and processes as part of Oracle’s CX Suite
Key Capability

Personalized advice for customers and agents

Deliver intuitive customer advice with contextual online forms and chatbot dialogs

Transition seamlessly between self-service and call center interactions
Key Capability

Transparent decisioning for everyone

**Explain** all advice, to customers, to agents and for auditing purposes

**Generate high fidelity forms** that capture data and decisions

**Optimize** experiences with interview analytics
Key Capability
Agile authoring for business experts

Configure rules and advice experiences transparently

Easily integrate with other applications
Program agenda

1. Overview of Intelligent Advisor
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Release highlights

✓ Rapid decision automation lifecycle
  Develop decision services in a browser

✓ Validate and extend data interactions during advice experiences
  Interview extension data connections

✓ Create Intelligent Advisor interviews for complex “Ask a Question” flows
  Anonymously create incidents on existing contacts
Rapid decision automation development
20C Monthly Update 2: Develop decision services in a browser

**Capability Highlights**
- Create and deploy decision-making services from any device
- Self-documenting web service described using Open API format
- Consume services directly from VBCS or any other application framework

**Key Benefits**
- Centralize custom application logic
- No need to install and manage a desktop development tool
- Easily share decision-making rules with stakeholders

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**Rules**

<table>
<thead>
<tr>
<th>Rules</th>
<th>Calculated once per case</th>
</tr>
</thead>
<tbody>
<tr>
<td>the account must be reviewed prior to approval if</td>
<td>the person lives in a high risk country or the requested account is high risk</td>
</tr>
<tr>
<td>the person lives in a high risk country if</td>
<td>Exists (the person's address, the person's address is in a high risk country)</td>
</tr>
</tbody>
</table>

**Table:**

<table>
<thead>
<tr>
<th>the account type</th>
<th>the ease of access</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;transaction&quot;</td>
<td>&quot;high&quot;</td>
</tr>
<tr>
<td>&quot;savings&quot;</td>
<td>&quot;medium&quot;</td>
</tr>
<tr>
<td>&quot;super savings&quot;</td>
<td>&quot;low&quot;</td>
</tr>
<tr>
<td>&quot;managed funds&quot;</td>
<td>&quot;low&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>the requested transaction limit</th>
<th>the requested account is high risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;high&quot;</td>
<td>&gt; $200000</td>
</tr>
<tr>
<td>&quot;medium&quot;</td>
<td>&gt; 50000</td>
</tr>
<tr>
<td>&quot;low&quot;</td>
<td>&gt; 100000</td>
</tr>
</tbody>
</table>

TRUE

FALSE
Empower authors to safely update decision logic
20C Monthly Update 2: Read-only decision service contracts

Capability Highlights
- The decision service contract defines the available inputs and the required outputs
- Only users with Manager role can modify the input and output contract, and deploy published versions
- Users with Viewer role can make any other changes, and publish and test those changes

Key Benefits
- Empower business users to quickly make changes knowing that they can’t accidentally break integrations that rely on a particular decision service contract
Capability Highlights

- **Use a simple testing interface** to try out any decision service, when authorized as a Hub user with the Viewer role
- **Choose which project version to test** including draft, latest published version or any historical version

Key Benefits

- **Easily demonstrate decision service behavior** to project stakeholders, with an intuitive user interface that instantly updates results as test values are entered
- **Share projects under development** with other teams and test out integrations, without even needing to deploy the project
Validate and extend data interactions during advice experiences

**20D: Interview extension data connections**

**Capability Highlights**
- Define interview extension data connections in Intelligent Advisor Hub
- Invoke connection securely from JavaScript interview extensions, with a new fetch() method that passes call request to Intelligent Advisor server

**Key Benefits**
- Incorporate third party data validation, identity checking and other services into advice experiences
- Simplify development lifecycle by centrally managing each connection’s details across dev/test/prod environments
Create Intelligent Advisor interviews for complex “Ask a Question” flows

20D: Anonymously create incidents on existing contacts

**Capability Highlights**
- Anonymous users can create incidents and other child records associated with a new or existing contact in a single interview

**Key Benefits**
- Create more complex, dynamic “Ask a Question” flows using Intelligent Advisor interviews
- Provide a uniform experience for users, regardless of whether they are logged in whencommencing the interview
Feature Deep Dive
Decision service web authoring
Decision service web authoring

Overview

• **Author**
  - ✓ Change rule documents
  - ✓ Bind contract inputs and outputs
  - ✓ Review project versions
  - ✓ Test decision service

• **Manager**
  - ✓ Create and rename projects
  - ✓ Change contract inputs and outputs
  - ✓ Delete project
  - ✓ Deploy decision service
  - ✓ + all capabilities of author role
Decision service web authoring

Contract

- Inputs and outputs are defined by a user with the Manager role
  - Types: Boolean, Date, Number, Text, Object list
  - Object lists also have inputs and outputs, and can be nested
- Any user with Author role can bind inputs and outputs to rules
  - Choose the name of the field or object that is set by an input
  - Choose the name of the field or object that an output will return
A single rule document contains all rules for a project
- The document contains both explanatory text and rules

Rules are always placed within rule blocks
- All rule types
- Inline comments

Styles are available for explanatory text
- Normal, Heading 1 through 5
Decision service web authoring

Simple rules

- Each rule determines a result that sets the value of a field
  - Type: Boolean, Date, Number, Text
  - Use arithmetic and comparison operators, and constant values

- Boolean rules have if condition
  - Combine conditions with and, or
  - Group conditions with any, all, either, both
  - English keywords only

Eligibility
https://www.gov.uk/universal-credit/eligibility

<table>
<thead>
<tr>
<th>Calculated once per case</th>
</tr>
</thead>
<tbody>
<tr>
<td>you are entitled to Universal Credit if</td>
</tr>
<tr>
<td>any</td>
</tr>
<tr>
<td>you are on a low income or</td>
</tr>
<tr>
<td>you are out of work</td>
</tr>
<tr>
<td>you are 18 or over</td>
</tr>
<tr>
<td>any</td>
</tr>
<tr>
<td>you are under State Pension age or</td>
</tr>
<tr>
<td>your partner is under State Pension age</td>
</tr>
<tr>
<td>you and your partner have 16000 or less in savings between you and</td>
</tr>
<tr>
<td>you live in the UK</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>you are 18 or over if</td>
</tr>
<tr>
<td>your age &gt;= 18</td>
</tr>
</tbody>
</table>
## Decision service web authoring

### Table rules

- **Table rules set multiple fields using multiple conditions**
- **Two types of condition columns**
  - *Condition field columns*
  - *Condition expression columns*
- **Condition field columns**
  - Column heading is field name
  - Cells are constants or comparisons
- **Condition expression columns**
  - Column heading is blank
  - Cells are complete expressions

<table>
<thead>
<tr>
<th>condition</th>
<th>your extra amount for disability or health conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>you have a limited capability for work due to a disability or health condition and the claim was started before April 2017</td>
<td>126.11</td>
</tr>
<tr>
<td>you have a limited capability for work due to a disability or health condition</td>
<td>336.20</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
Decision service web authoring

Rule functions

- Comprehensive set of rule functions are available, e.g.:
  - Logical: If, Not
  - Date: AddDays, ExtractMonth
  - Object: Exists, ForAll, InstanceCount

- Auto-suggestion
  - Functions with explanatory text
  - Tab between arguments

- Not all Policy Modeling functions
Object rules

- Rules which calculate values of object fields need to be placed in an object rule block
  - Select “Calculated for each of…” in the rule block header

- To infer a list of output object records, use an object rule
  - Each object rule sets the field values for a list of object records
  - Condition columns define which records to include in the list
  - Zero condition columns is OK
Decision service web authoring
Export and import

- To share projects between Hubs, use Import and Export
- Export files are in an open .json format, and can be manipulated by other tools if needed
- Also, content from Oracle Policy Modeling rule documents can be pasted into the web rule editor
  ✓ Most syntax will be preserved, although some functions are not supported
Decision service web authoring

Project versions

- A project can be *Committed* at any time to create a new version
- Previously published versions can be reviewed by Author users
  - Input and output contract
  - Rule document
- Only the current *draft* version is editable
  - Easily switch between current draft and earlier read-only versions
Decision service web authoring

Test

Choose Run to easily test a decision service

- Enter inputs interactively and instantly review results
- No deployment step needed
- Test the current draft, latest published, or any historical version

Links also provided for

- Programmatic testing URL – for REST API testing and app integration
- Open API (swagger) service description
Deploy directly from Hub

- Choose any published version
- Enter a deployment name and optional comments
- Deploy to any workspace for which user has Manager role
Feature Deep Dive
Interview extension data connections
Interview extension data connections

Configure

• Set up connection in Hub
  ✓ Choose *interview extension* type
  ✓ Enter name and URL
  ✓ Configure health check URL (optional)
  ✓ Configure security options
Interview extension data connections

Develop

• Integrate via interview extension
  ✓ Set up options
  ✓ Call `fetch` method
  ✓ Process results as needed

• Flexible approach
  ✓ Send any body data (including interview attribute values)
  ✓ Use REST/SOAP or any other content protocol

ℹ️ Upload controls and generated forms not supported. Use custom upload extension instead; pass attachment data in body.

```javascript
var opts = {
    connectionName: "LABizLookup",
    relativeUri: ",",
    method: "GET",
    contentType: "application/json",
    body: null
};

opts.relativeUri = "?location_account=" + regBizNum;

interview.fetch(opts)
  .then(function (response) {
    if (response.ok) {
      response.json().then(function (json) {
        if (json.length === 1)
          verifiedBizName = json[0].business_name;
        else
          verifiedBizName = null;
        setBizNameLabel(verifiedBizName, divLabel, divLabelText);
      });
    } else {
      setBizNameLabel(null, divLabel, divLabelText);
    }
  }
```
Interview extension data connections

Deploy and Test

- Testing requires deploy to Hub
  - Interview extension proxies through Intelligent Advisor server
  - Data from `fetch` method call is passed to Intelligent Advisor server
  - Connection URL is called from Intelligent Advisor server

- Browser limitations
  - IE 11 not supported
Interview extension data connections

Security

- Flexible security options
  - Pass a client certificate (2-way SSL)
  - Use basic auth for secure server-to-server authentication
  - Support custom SSL root certificates

- Compatible with 3rd party keys
  - Pass authentication key in connection URL, or in request body
  - Can register fixed outbound Hub IP to your 3rd party authentication key

INTERVIEW EXTENSION DETAILS

URL: https://oracle.com/example?MY_AUTH_KEY=555-777-443

Present this client certificate: (None)

HTTP BASIC AUTHENTICATION

Use HTTP basic authentication

Username: SecureClient768
New Password: **************
.... and more!
Other enhancements in this release

Create additional charts

Chart all versions of a deployment

Chat enabled for Workers (HCM)

Start/stop logging validation errors
Program agenda

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Where to get more information

Intelligent Advisor Generally

Documentation

News, Discussion and Updates