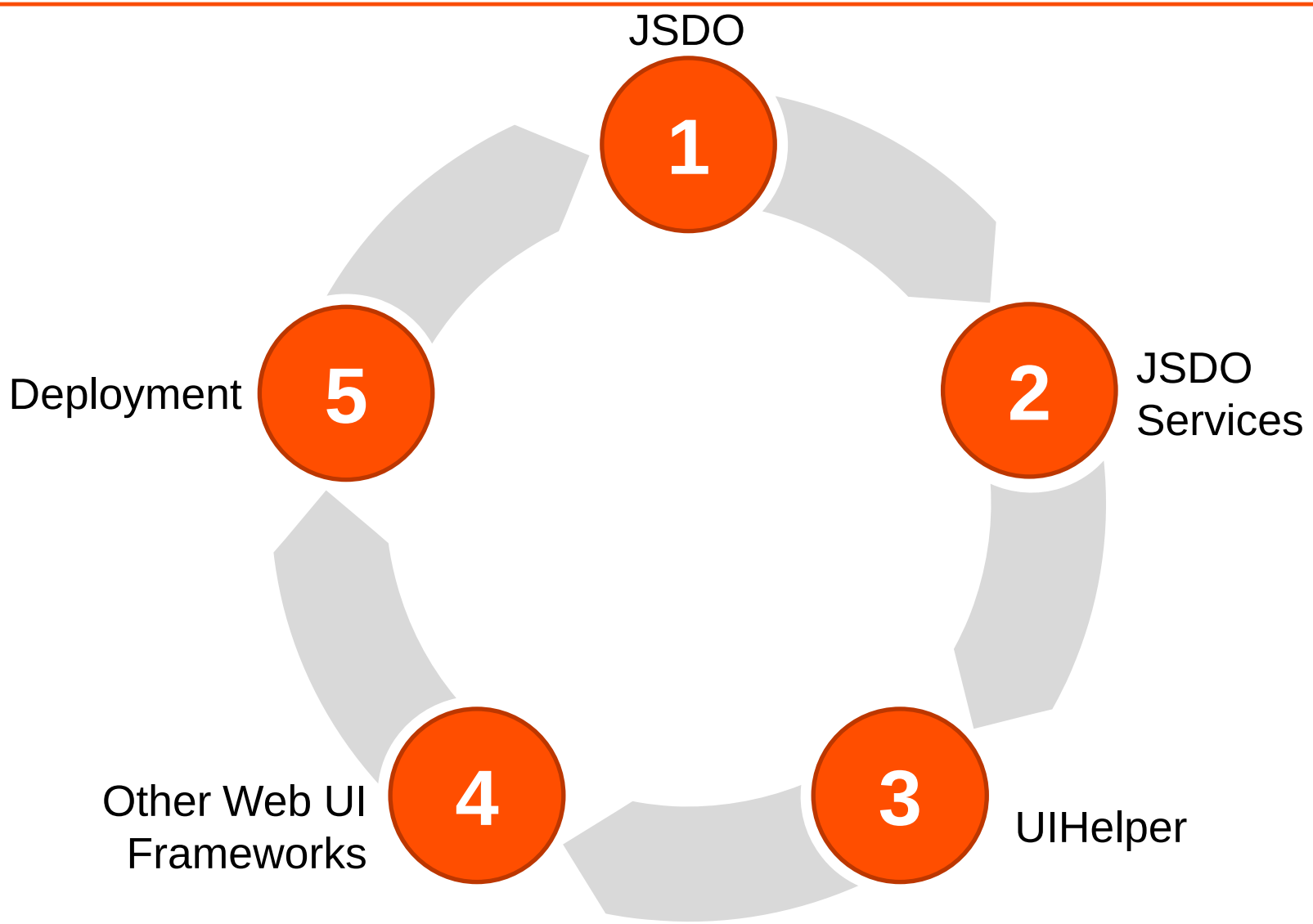
Inside Progress OpenEdge Mobile!

Edsel Garcia
OpenEdge Development

PROGRESS EXCHANGE 2013
DISCOVER. DEVELOP. DELIVER.

Progress OpenEdge Mobile



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Progress OpenEdge Mobile

JSDO

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JSDO – Progress JavaScript Data Object

- Access to OpenEdge Database
- Access to the OpenEdge AppServer
- XMLHttpRequest
- ProDataSet
- CRUD + Invoke

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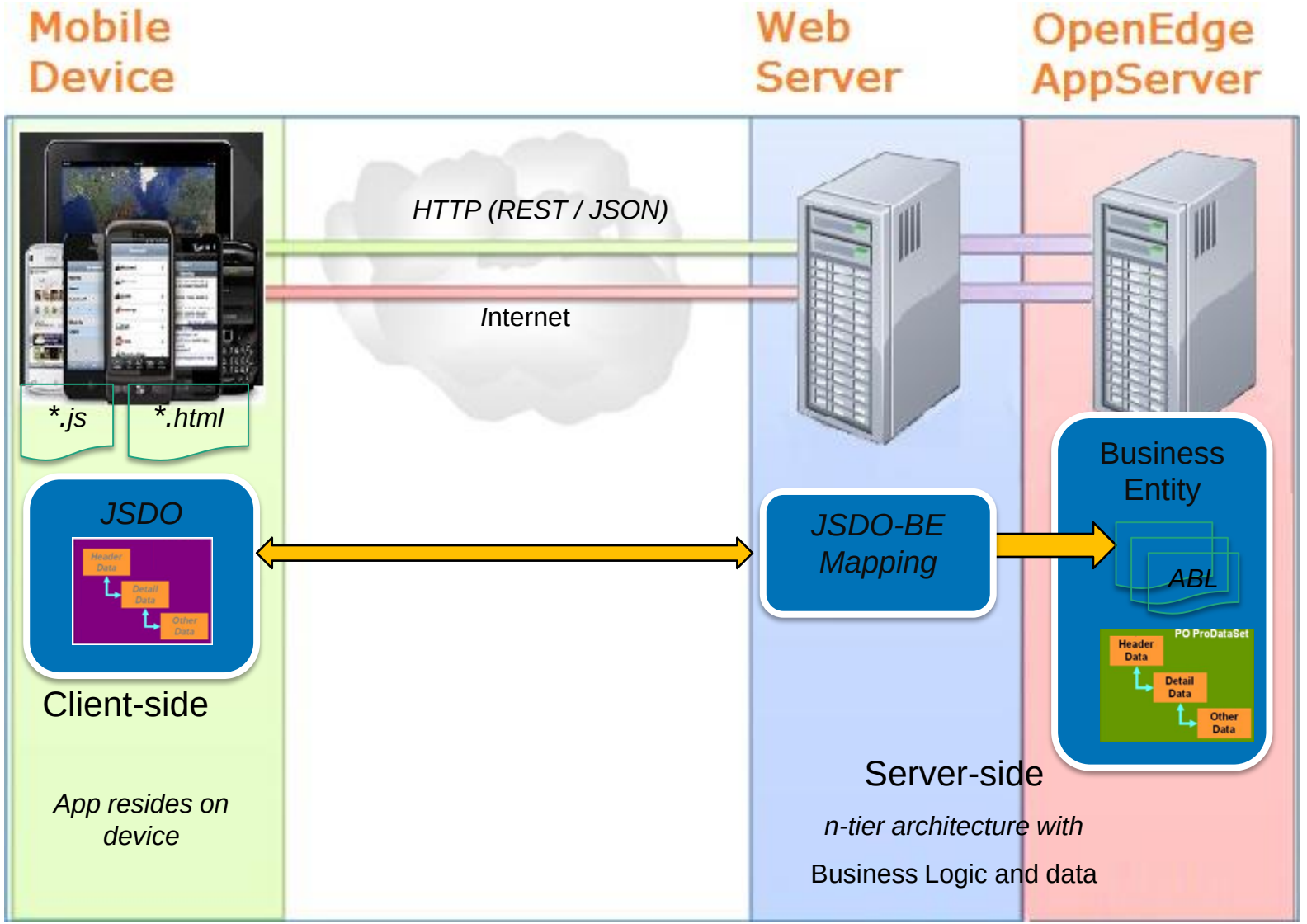
Runtime Architecture for OpenEdge Mobile



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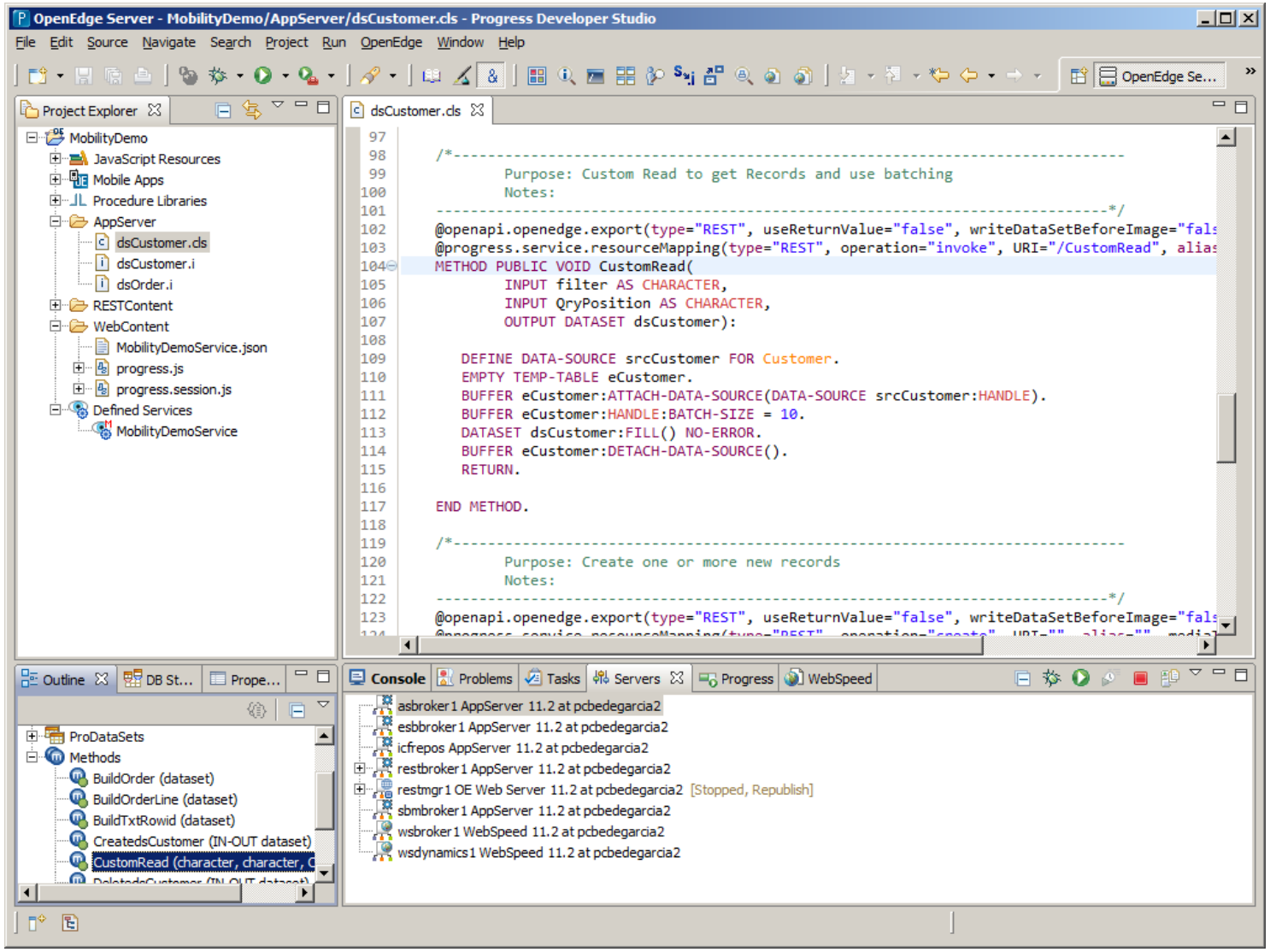
Business Entity



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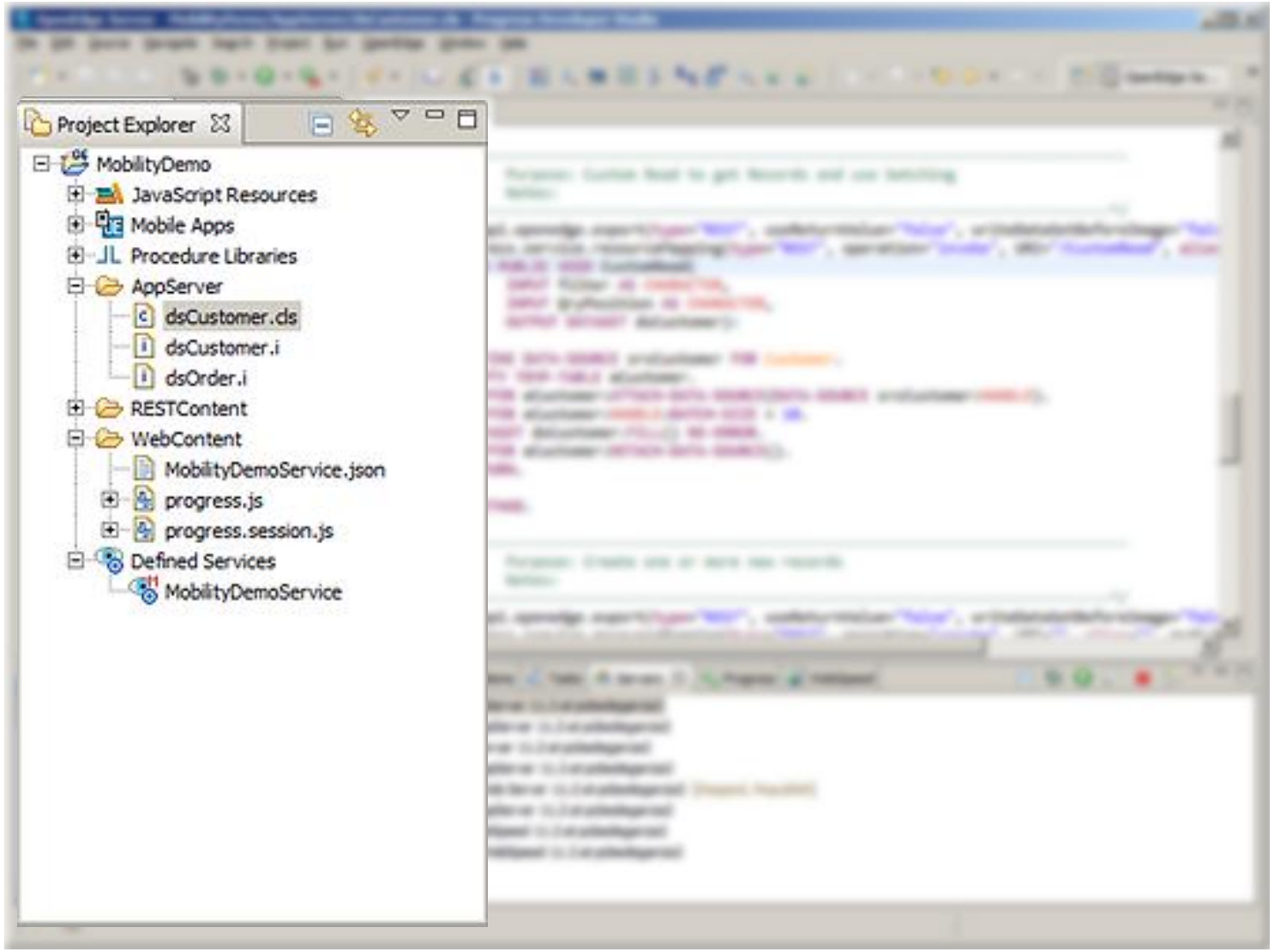
Business Entity



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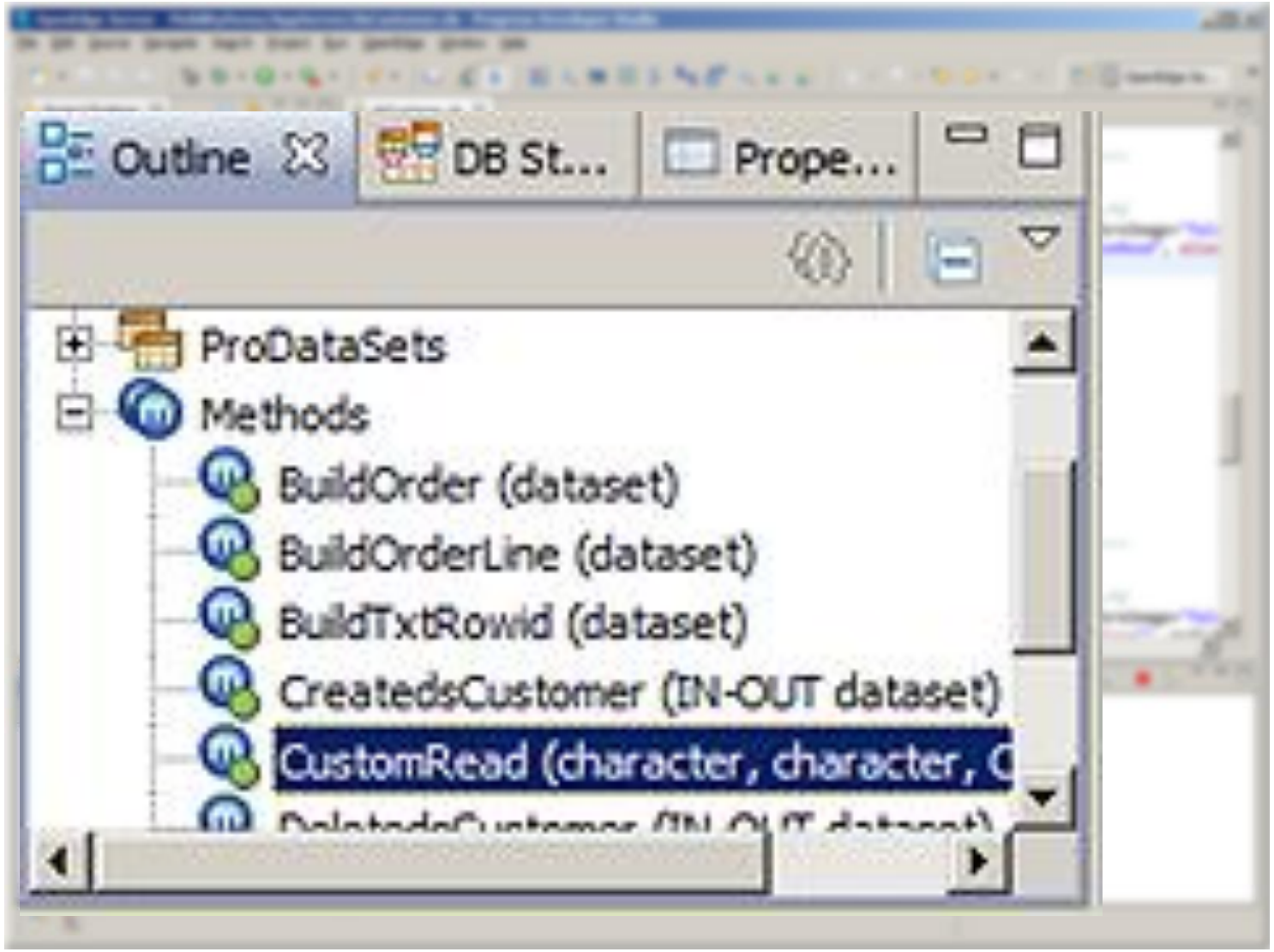
Business Entity



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Business Entity

dsCustomer.cls

```
97
98      /*------------------------------------------------------------------------------
99              Purpose: Custom Read to get Records and use batching
100             Notes:
101     ------------------------------------------------------------------------------*/
102     @openapi.openedge.export(type="REST", useReturnValue="false", writeDataSetBeforeImage="fals
103     @progress.service.resourceMapping(type="REST", operation="invoke", URI="/CustomRead", alia
104     METHOD PUBLIC VOID CustomRead(
105             INPUT filter AS CHARACTER,
106             INPUT QryPosition AS CHARACTER,
107             OUTPUT DATASET dsCustomer):
108
109        DEFINE DATA-SOURCE srcCustomer FOR Customer.
110        EMPTY TEMP-TABLE eCustomer.
111        BUFFER eCustomer:ATTACH-DATA-SOURCE(DATA-SOURCE srcCustomer:HANDLE).
112        BUFFER eCustomer:HANDLE:BATCH-SIZE = 10.
113        DATASET dsCustomer:FILL() NO-ERROR.
114        BUFFER eCustomer:DETACH-DATA-SOURCE().
115        RETURN.
116
117     END METHOD.
118
119     /*------------------------------------------------------------------------------
120             Purpose: Create one or more new records
121             Notes:
122     ------------------------------------------------------------------------------*/
123     @openapi.openedge.export(type="REST", useReturnValue="false", writeDataSetBeforeImage="fals
```


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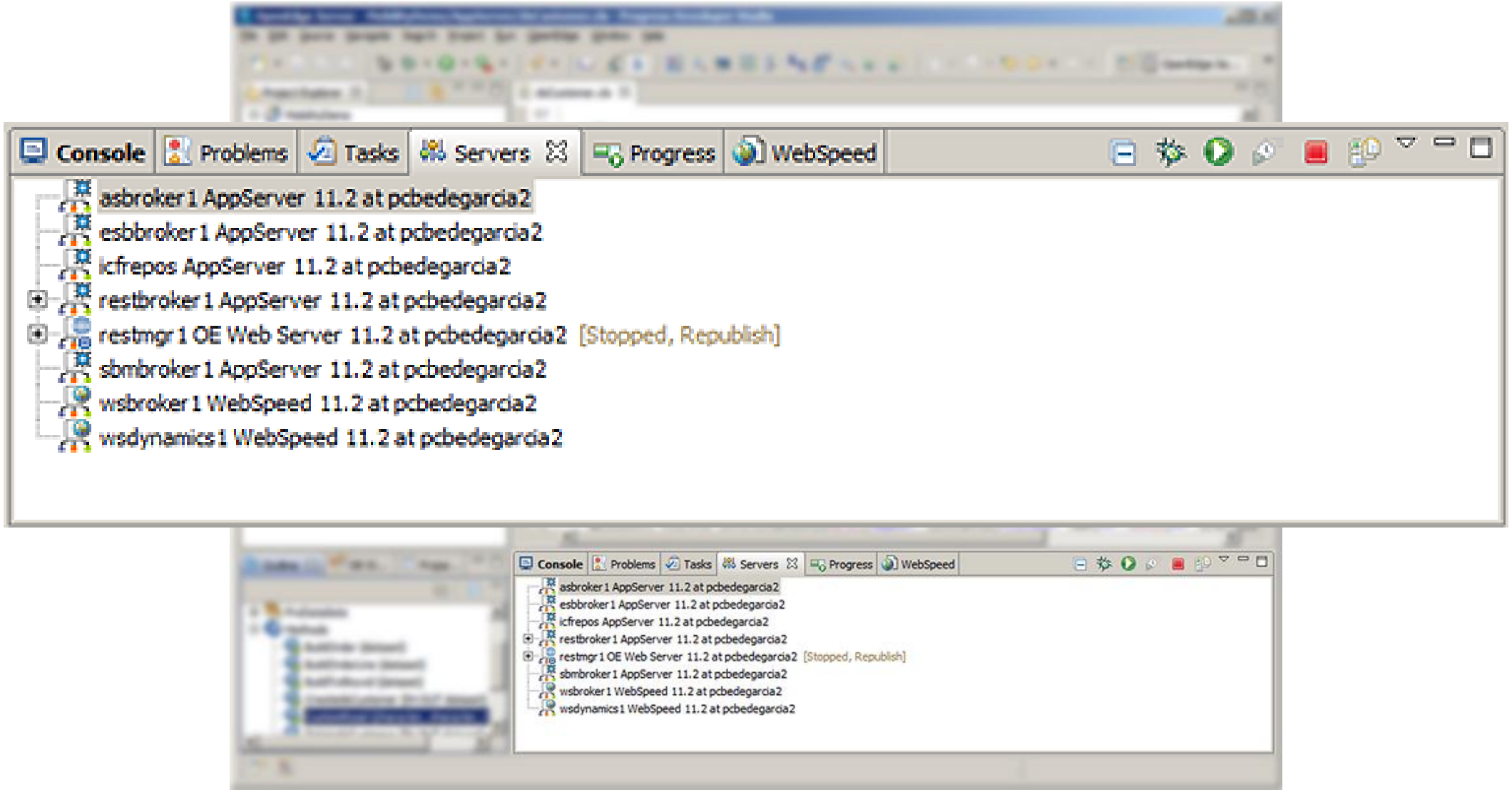
Business Entity



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JSDO Catalog

dsCustomer.ds | MobilityDemoService.json

```
{
    "version": "1.0",
    "lastModified": "Tue Mar 05 16:01:57 EST 2013",
    "services": [{
        "name": "MobilityDemoService",
        "address": "\/rest\/MobilityDemoService",
        "useRequest": true,
        "resources": [{
            "name": "dsCustomer",
            "path": "\/dsCustomer",
            "schema": {
                "type": "object",
                "additionalProperties": false,
                "properties": {"dsCustomer": {
                    "type": "object",
                    "additionalProperties": false,
                    "properties": {"eCustomer": {
                        "type": "array",
                        "items": {
                            "additionalProperties": false,
                            "properties": {
                                "_id": {"type": "string"},
                                "CustNum": {
                                    "type": "integer",
                                    "default": 0,
                                    "title": ""
                                },
```


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JSDO – Progress Java Script Data Object

- CRUD + Invoke
  - add() (CREATE)
  - fill() (READ)
  - assign() (UPDATE)
  - remove() (DELETE)
  - method() (INVOKE)
- Properties
  - autoSort (11.3)
  - caseSensitive (11.3)
  - name
  - record
  - useRelationships
- Methods
  - addRecords()
  - find()
  - findById()
  - Foreach()
  - getData()
  - getId()
  - getSchema()
  - saveChanges()
  - sort() (11.3)
  - subscribe()
  - unsubscribe()

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JSDO – Progress JavaScript Data Object

- JSDO – progress.js
- Session – progress.session.js
- DLC/mobile/client/js
- Included in Mobile App Builder projects

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JSDO – Using the JSDO

```
session = new progress.data.Session();
session.login(<url-to-service>, "", "");
session.addCatalog(<url-to-jsdo-catalog>);

jsdo = new progress.data.JSDO({ name: 'dsCustomer' });
jsdo.subscribe('AfterFill', onAfterFillCustomers, this);

jsdo.fill();
```


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JSDO

Progress OpenEdge Mobile

JSDO

Benefits

- Leverage Existing Business Logic

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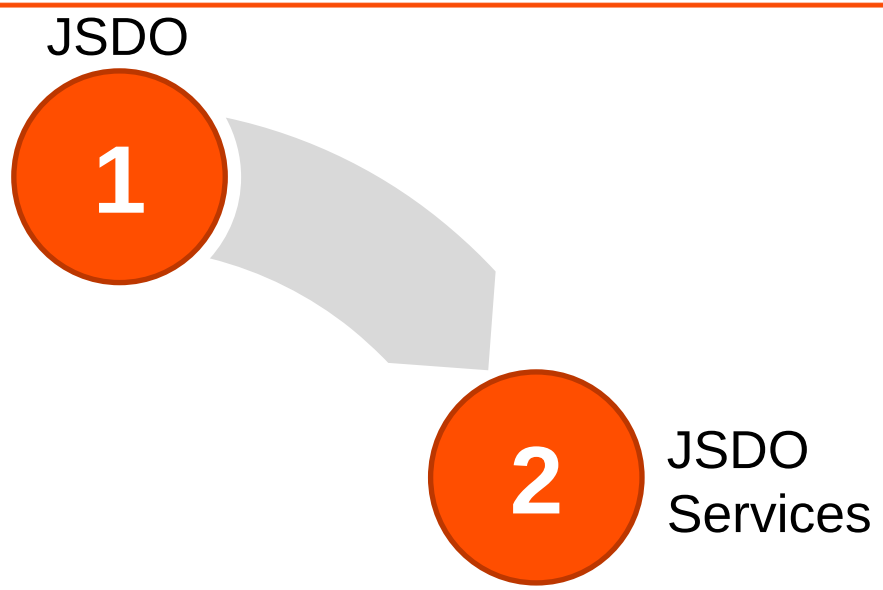

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JSDO Services

- Access to the JSDO from the Mobile App Builder
- JSDO Catalog
- CRUD:
  - Create
  - Read
  - Update
  - Delete
- Row
- Invoke

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JSDO Services

PROGRESS

Progress OpenEdge Mobile

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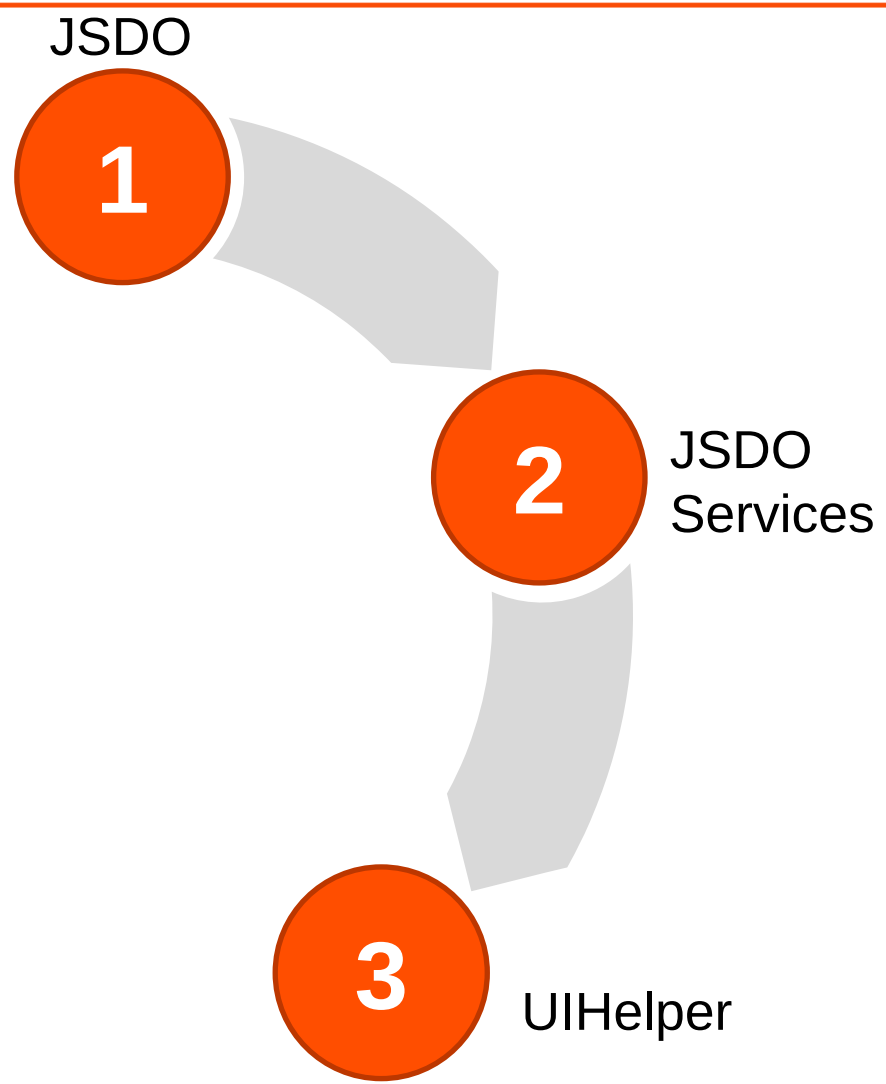
Progress OpenEdge Mobile



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UIHelper

- UI based on HTML (listviews built using <ul> +)
- jQuery Mobile
- jQuery Mobile using the Mobile App Builder
- JavaScript + HTML

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UIHelper – Using the UIHelper

```
session = new progress.data.Session();
session.login(<url-to-service>, "", "");
session.addCatalog(<url-to-jsdo-catalog>);

jsdo = new progress.data.JSDO({ name: 'dsCustomer' });
jsdo.subscribe('AfterFill', onAfterFillCustomers, this);

uihelper = new progress.ui.UIHelper({ jsdo: jsdo });
uihelper.setDetailPage({ name: "custdetail“ });

uihelper.setListView({ name: 'listview',
        format: '{CustNum}<br>{Name}<br>{State}<br>{Country}',
        autoLink: true
    }
);

jsdo.fill();
```


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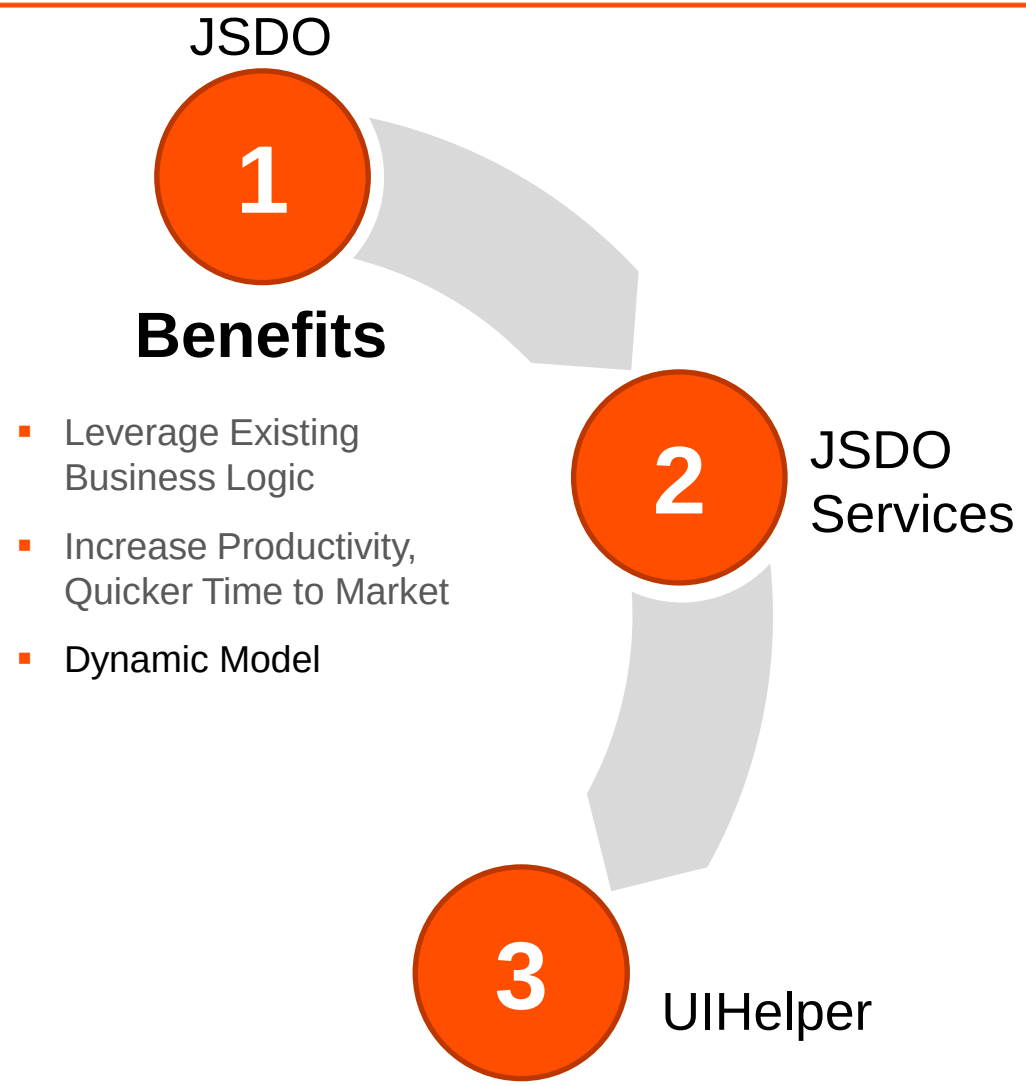
UIHelper

Progress OpenEdge Mobile



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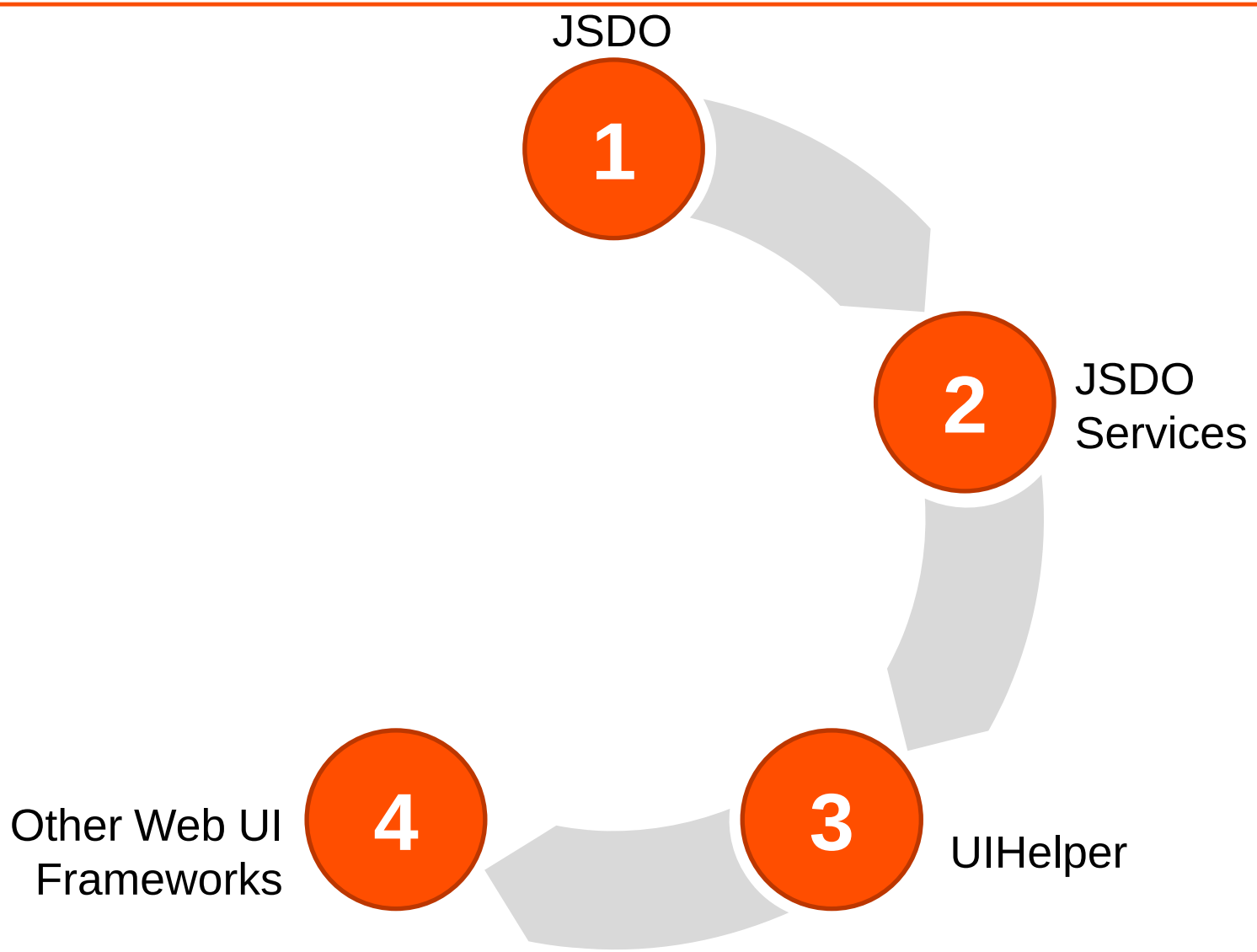

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Other Mobile Web UI Frameworks

- Web
- Sencha Touch
- Knockout.js
- Qooxdoo
- Dojo Toolkit

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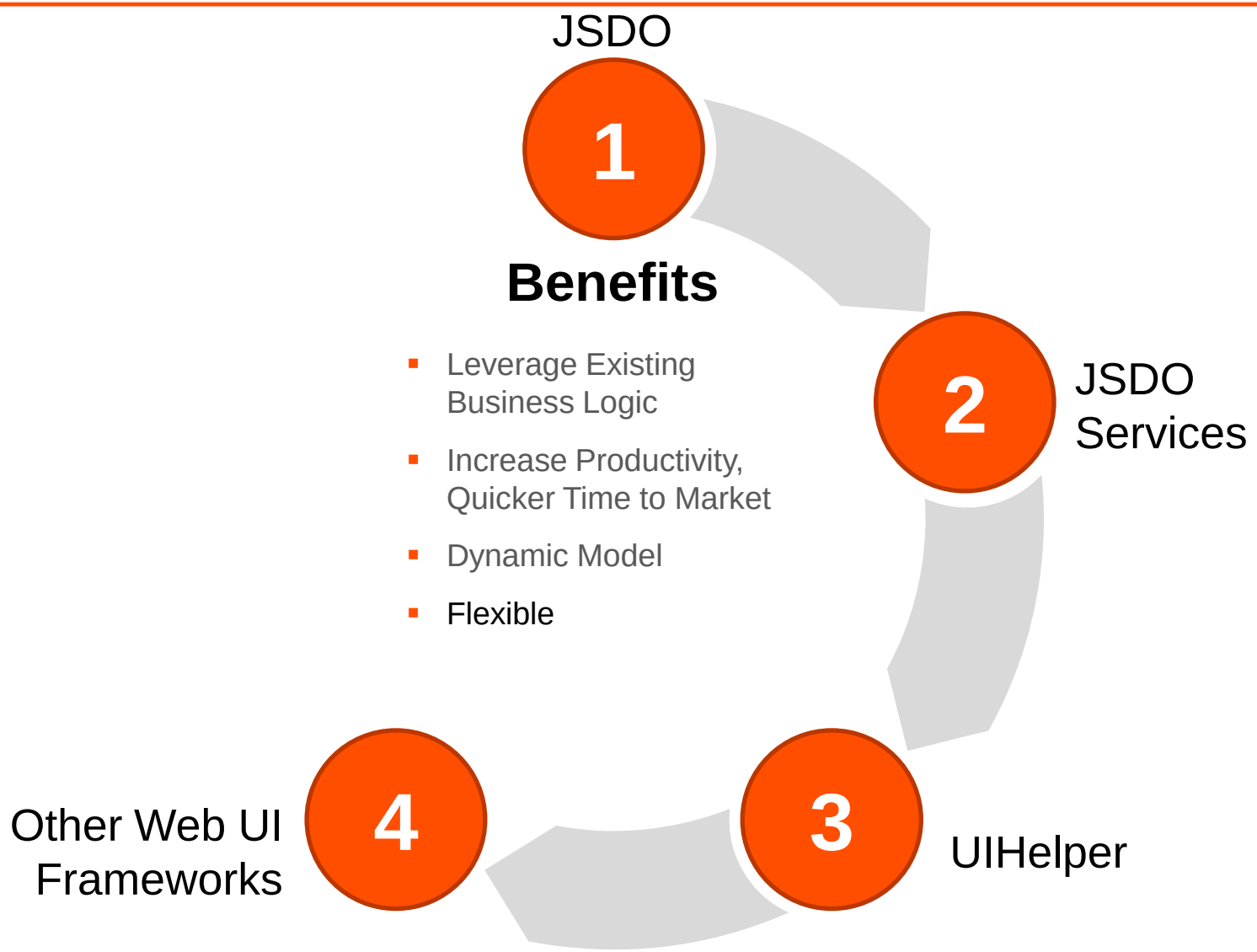

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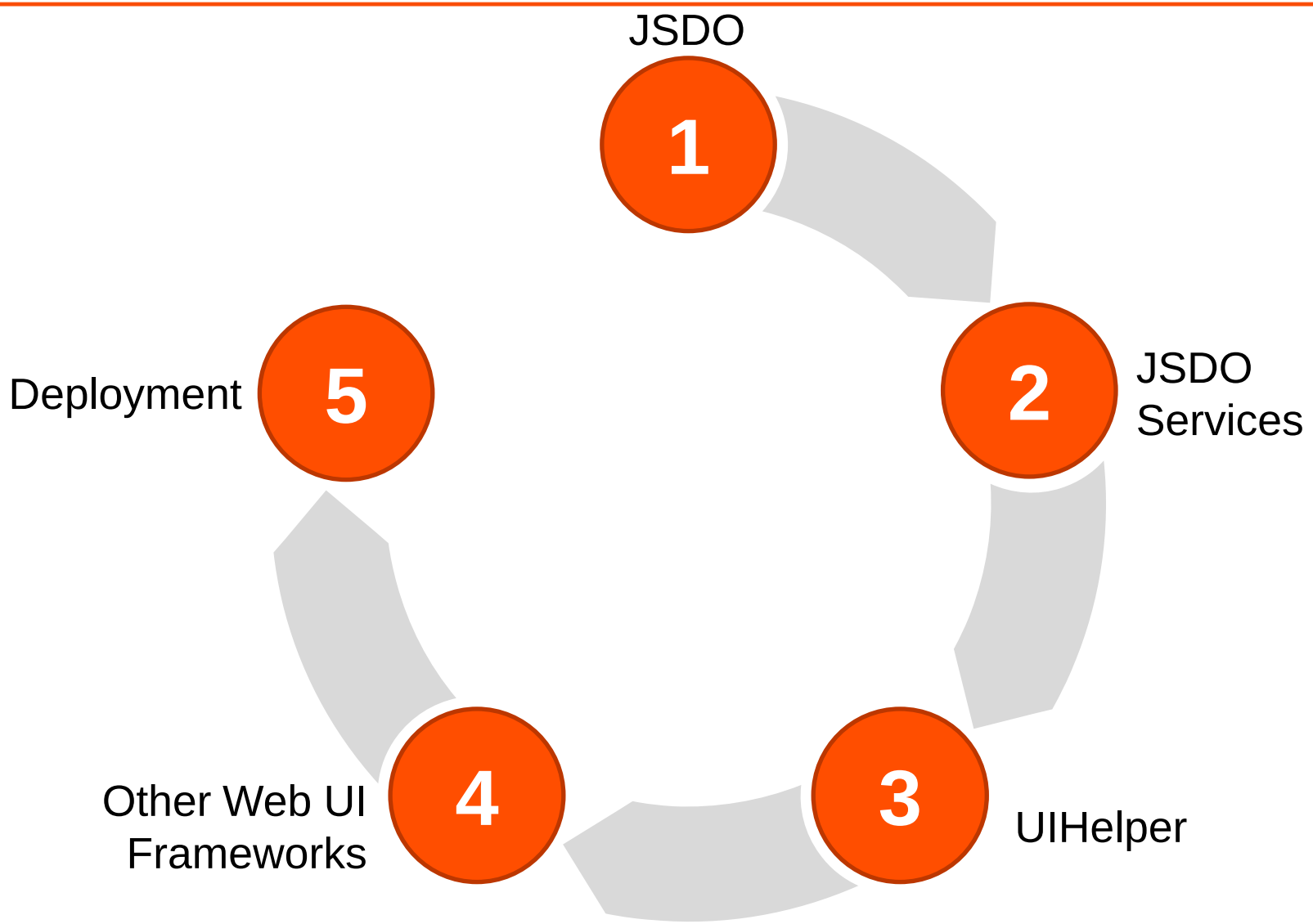

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Deployment

- Build native app for iOS and Android using PhoneGap
- Cloud based build
- Distribution certificate and provisioning profile needed for iOS
- Auto-generated key/certificate for Android
  - Install from Unknown Sources allows install on device
- Install options:
  - Over the Air Install (iOS)
  - iTunes sync (iOS)
  - Download from web site (Android)

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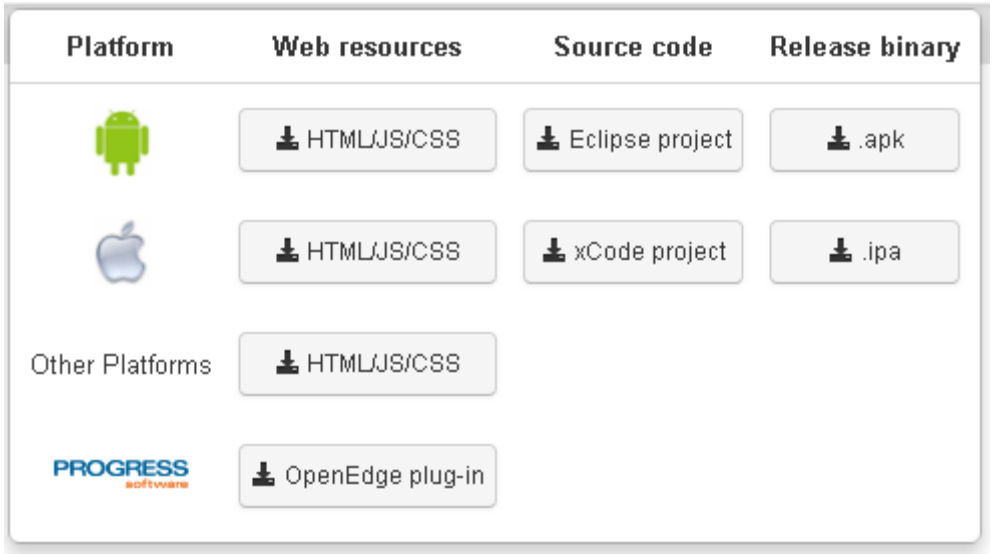
Deployment

Deployment



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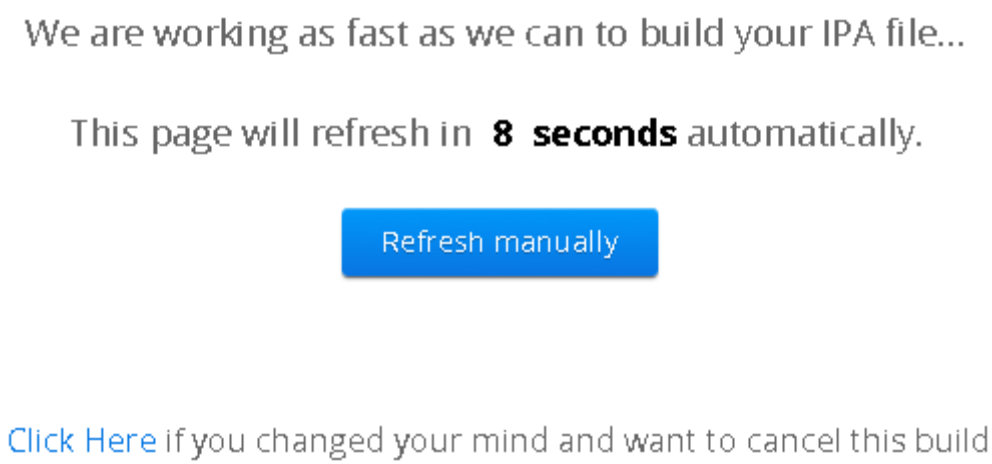
Deployment



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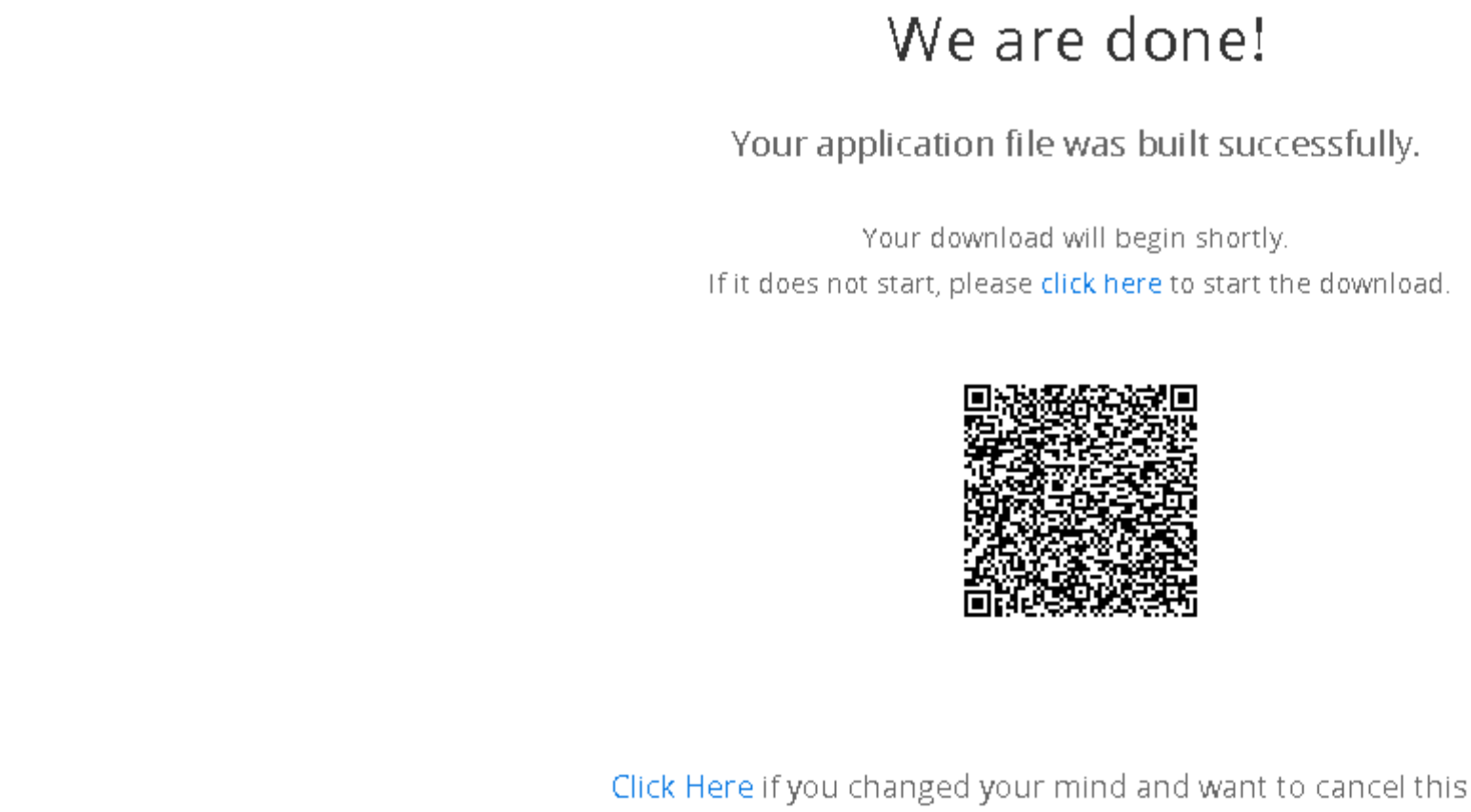
Deployment



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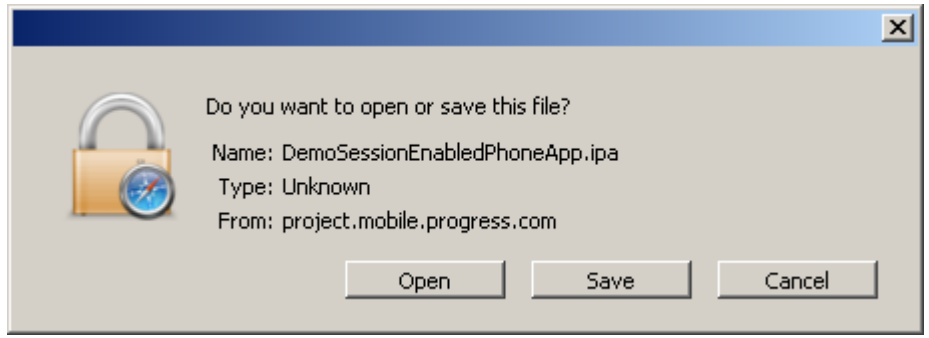
Deployment

We are done!

Your application file was built successfully.

Your download will begin shortly.
If it does not start, please click here to start the download.



Click Here if you changed your mind and want to cancel this build

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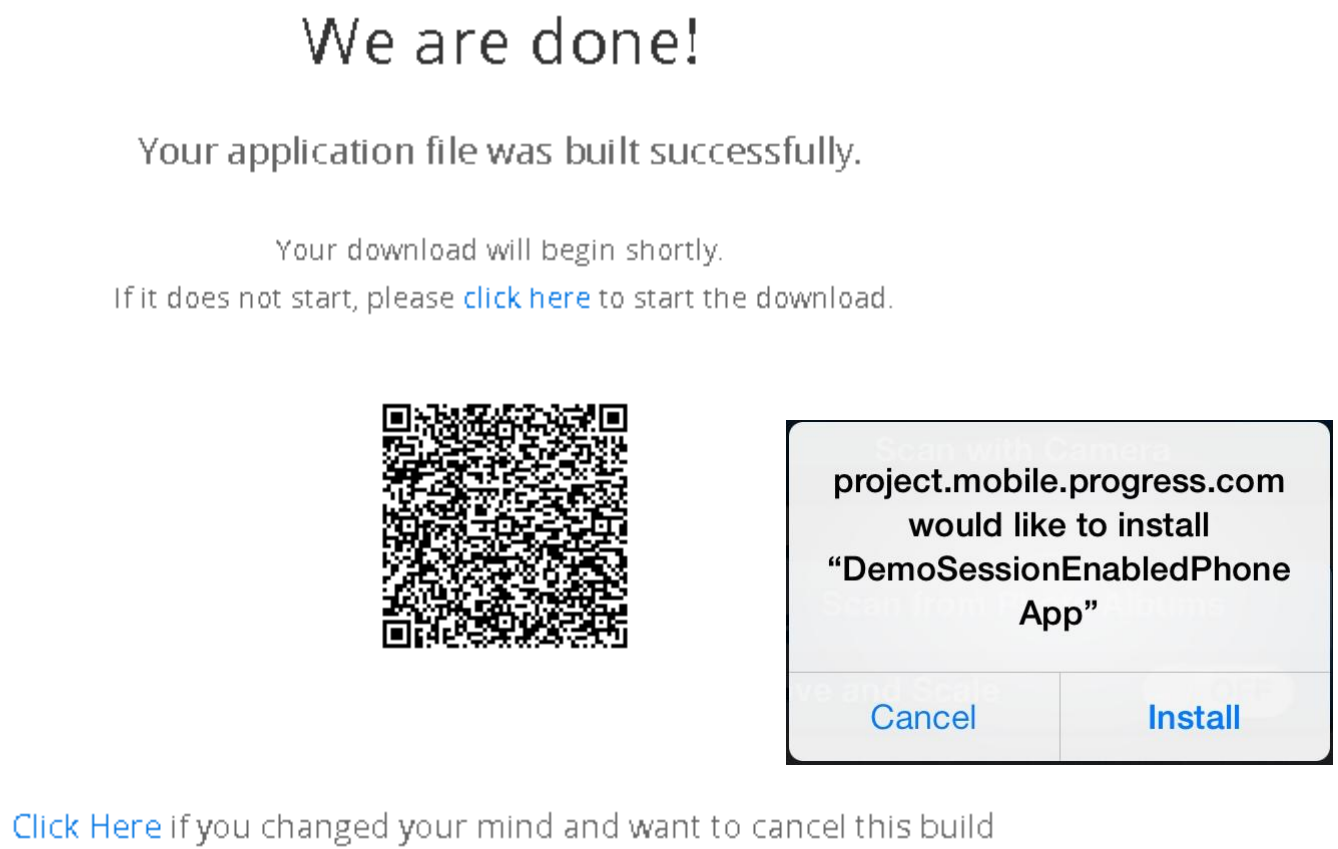
Deployment



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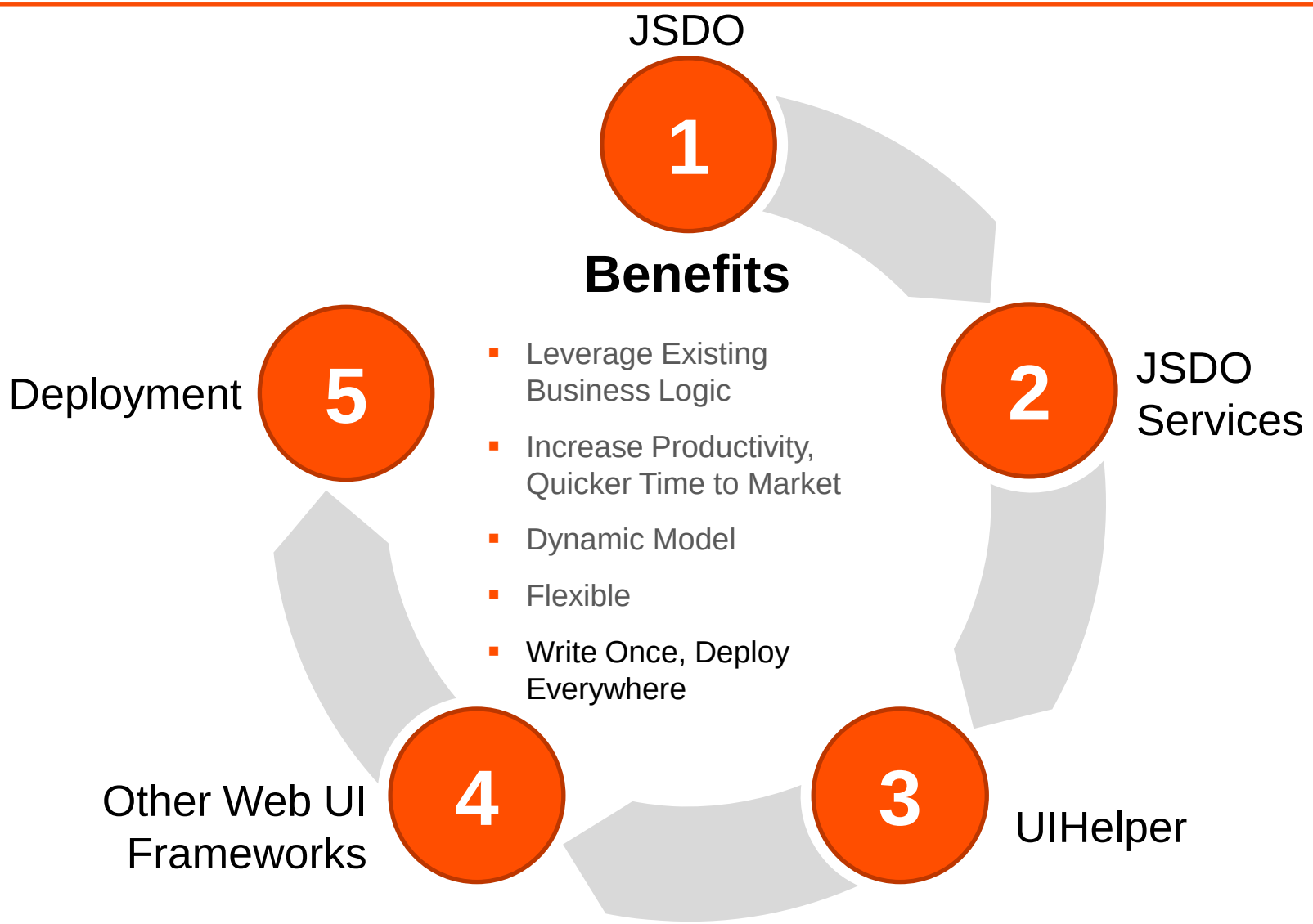

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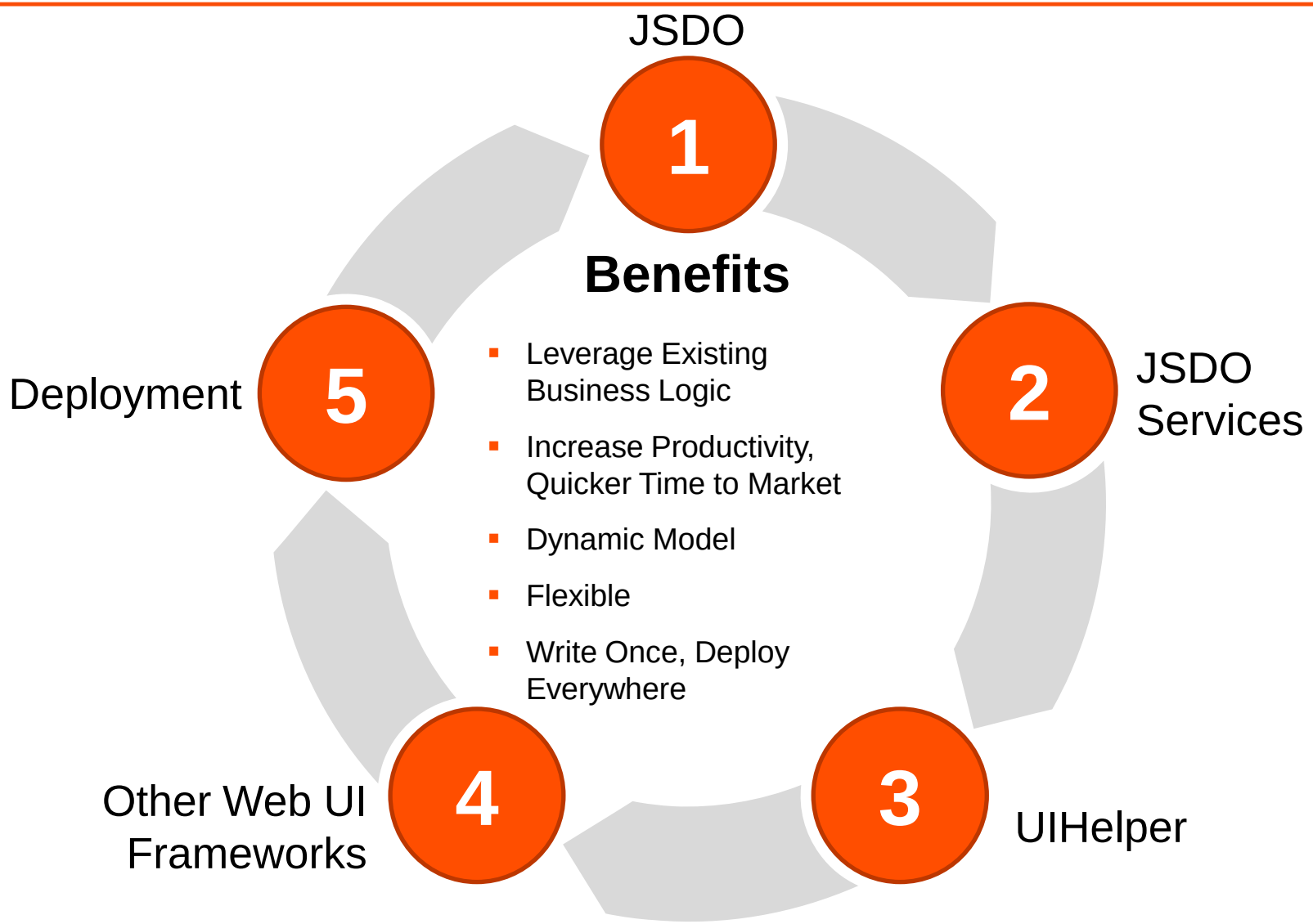

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Progress OpenEdge Mobile

Write Once, Run Anywhere Portability with the Benefits of Native Applications

The Easiest Way to Build an OpenEdge Application Supporting Mobile Devices, End-to-end

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