Associate Reactive Developer Sample Exam

outsystems

07/2020

Before Starting

This sample exam has 20 questions that will help you get ready for the OutSystems 11 Associate Reactive Developer exam.

We recommend that you prepare a real exam environment, as much as possible.

- Book a quiet room just for you.
- Print this document, apart from the last page.
- Get a stopwatch or set a timer for the (recommended) duration of 48 minutes.

The last page of this document has the correct answers. Don't peek! Use it only after completing your exam, to check how well you did.

During the Sample Exam

To accurately simulate the real exam environment, we suggest that you:

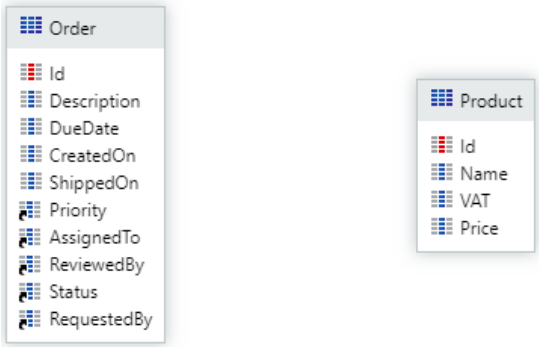
- Read each question and its answers carefully.
- Take your time! Questions may be revisited and your choices can be changed.
- Mark the questions that you want to review at the end.
- Pick only one answer per question, as only one is correct.
- Answer all questions, as there's no benefit in not doing so.
- Try turning off all electronic devices during the exam.
- Refrain from using or reading any external materials during the exam.

After Completing the Sample Exam

After completing the exam, validate the answers you selected by checking the ones provided in the last page of this document, and count the total number of correct answers. Since the passing score is 70% or higher, you should get at least 14 questions right. In case you chose any wrong answers, we suggest you review the study materials where that specific topic is covered.

Sample Exam Questions

1. Considering the following Entities, what is required to create a many-to-many relationship between them?



- ☐ **A.** Create a third Entity that contains two attributes of types *Order Identifier* and *Product Identifier*.
- ☐ **B.** Create a third Entity with a primary key of type *Order Identifier* and an attribute of type *Product Identifier*.
- ☐ **C.** Create an attribute of type *Order Identifier* in the Product Entity and an attribute of type *Product Identifier* in the Order Entity.
- ☐ **D.** Create an attribute of type *Product Identifier* in the Order Entity.

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2. In OutSystems, an Entity Identifier ...

- ☐ **A.** ... must have its Data Type set to Long Integer.
- ☐ **B.** ... must be set to Auto Number.
- ☐ **C.** ... can only be a single attribute.
- ☐ **D.** ... is created automatically and cannot be modified.

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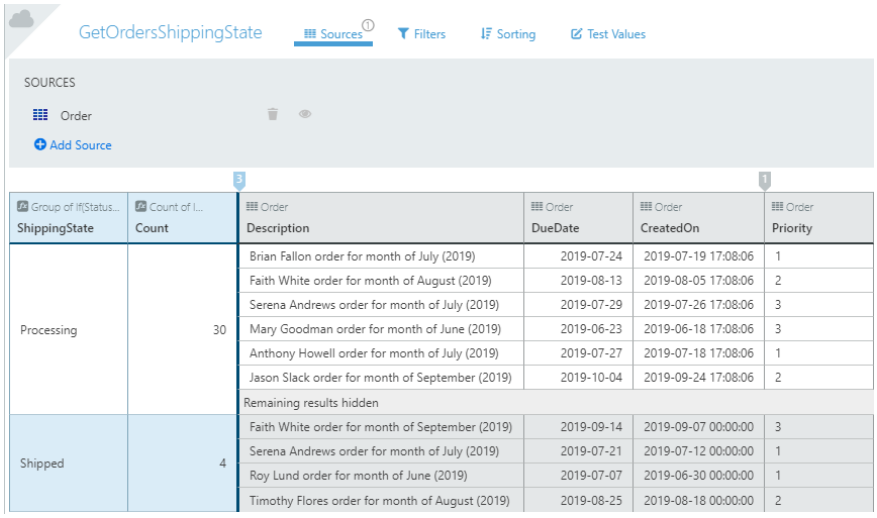
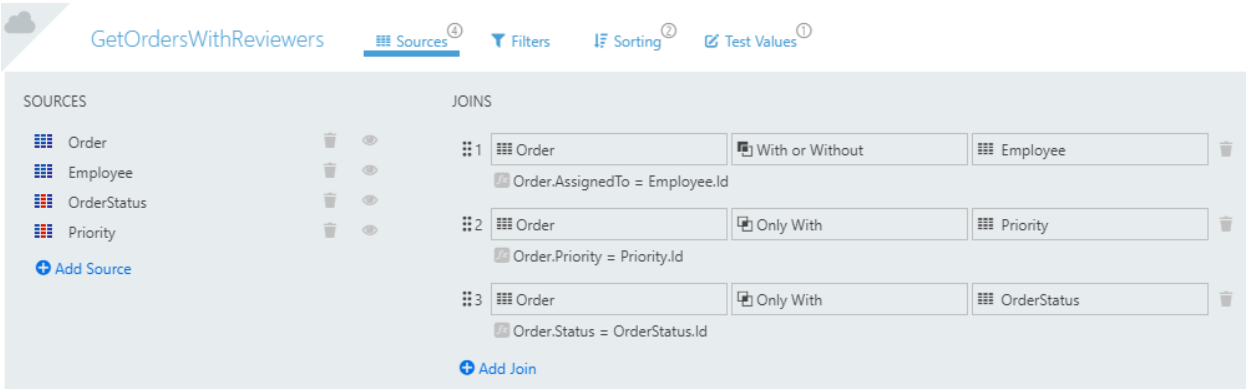
3. Considering the following Aggregate, what will be the attributes of the *GetOrdersShippingState.List.Current* record?



Group of If(Status... ShippingState	Count of I... Count	Order Description	Order DueDate	Order CreatedOn	Order Priority
Processing	30	Brian Fallon order for month of July (2019)	2019-07-24	2019-07-19 17:08:06	1
		Faith White order for month of August (2019)	2019-08-13	2019-08-05 17:08:06	2
		Serena Andrews order for month of July (2019)	2019-07-29	2019-07-26 17:08:06	3
		Mary Goodman order for month of June (2019)	2019-06-23	2019-06-18 17:08:06	3
		Anthony Howell order for month of July (2019)	2019-07-27	2019-07-18 17:08:06	1
		Jason Slack order for month of September (2019)	2019-10-04	2019-09-24 17:08:06	2
		Remaining results hidden			
Shipped	4	Faith White order for month of September (2019)	2019-09-14	2019-09-07 00:00:00	3
		Serena Andrews order for month of July (2019)	2019-07-21	2019-07-12 00:00:00	1
		Roy Lund order for month of June (2019)	2019-07-07	2019-06-30 00:00:00	1
		Timothy Flores order for month of August (2019)	2019-08-25	2019-08-18 00:00:00	2

- ☐ **A.** The two aggregation attributes: *ShippingState* and *Count*.
- ☐ **B.** The two aggregation attributes (*ShippingState* and *Count*) plus all the attributes of the Source Entity.
- ☐ **C.** Six attributes corresponding to the six visible columns in the Aggregate: *ShippingState, Count, Description, DueDate, CreatedOn and Priority.*
- ☐ **D.** The two aggregation attributes (*ShippingState* and *Count*) plus the columns used to calculate these aggregations.

4. Considering the following Aggregate, where the Orders are fetched with their reviewers (Employees), which of the following options is **correct**?



- ☐ **A.** The Aggregate only returns Orders with Priority, Status and Employee.
- ☐ **B.** The Aggregate returns Orders without Employee and without Status.
- ☐ **C.** The Aggregate returns Orders with Status and at least one Employee.
- ☐ **D.** The Aggregate returns Orders with Priority and with zero or more Employees.

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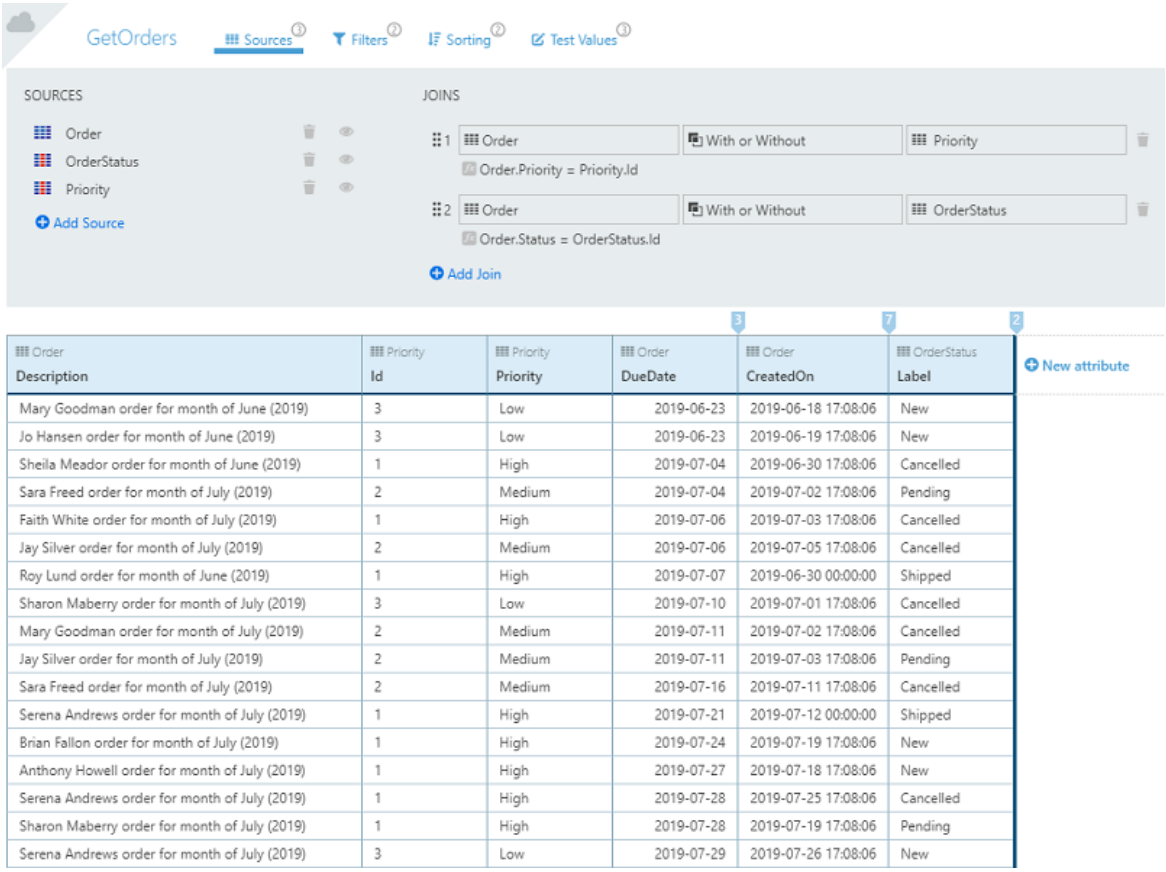
5. How would you change the following Aggregate to return the number of orders per priority?



Order Description	Priority Id	Priority Priority	Order DueDate	Order CreatedOn	OrderStatus Label
Mary Goodman order for month of June (2019)	3	Low	2019-06-23	2019-06-18 17:08:06	New
Jo Hansen order for month of June (2019)	3	Low	2019-06-23	2019-06-19 17:08:06	New
Sheila Meador order for month of June (2019)	1	High	2019-07-04	2019-06-30 17:08:06	Cancelled
Sara Freed order for month of July (2019)	2	Medium	2019-07-04	2019-07-02 17:08:06	Pending
Faith White order for month of July (2019)	1	High	2019-07-06	2019-07-03 17:08:06	Cancelled
Jay Silver order for month of July (2019)	2	Medium	2019-07-06	2019-07-05 17:08:06	Cancelled
Roy Lund order for month of June (2019)	1	High	2019-07-07	2019-06-30 00:00:00	Shipped
Sharon Maberry order for month of July (2019)	3	Low	2019-07-10	2019-07-01 17:08:06	Cancelled
Mary Goodman order for month of July (2019)	2	Medium	2019-07-11	2019-07-02 17:08:06	Cancelled
Jay Silver order for month of July (2019)	2	Medium	2019-07-11	2019-07-03 17:08:06	Pending
Sara Freed order for month of July (2019)	2	Medium	2019-07-16	2019-07-11 17:08:06	Cancelled
Serena Andrews order for month of July (2019)	1	High	2019-07-21	2019-07-12 00:00:00	Shipped
Brian Fallon order for month of July (2019)	1	High	2019-07-24	2019-07-19 17:08:06	New
Anthony Howell order for month of July (2019)	1	High	2019-07-27	2019-07-18 17:08:06	New
Serena Andrews order for month of July (2019)	1	High	2019-07-28	2019-07-25 17:08:06	Cancelled
Sharon Maberry order for month of July (2019)	1	High	2019-07-28	2019-07-19 17:08:06	Pending
Serena Andrews order for month of July (2019)	3	Low	2019-07-29	2019-07-26 17:08:06	New

- ☐ **A.** Change the Join between the Order and the Priority to *Only With* and create a Count over the *Priority.Id* attribute.
- ☐ **B.** Create a Group By over the *Priority.Id* attribute and a Count over the *Order.Id* attribute.
- ☐ **C.** Create a GroupBy over the *Order.Id* attribute and a Count over the *Priority.Id* attribute.
- ☐ **D.** Remove the Join between the Order and the OrderStatus and create a Count over the *Priority.Id* attribute.

6. Considering the On Initialize lifecycle event, which of the following options is **true**?

- ☐ **A.** The On Initialize event is triggered before the Screen or Block is rendered and before fetching any data.
- ☐ **B.** The On Initialize event is triggered after the Screen or Block has been rendered, so you can use it to manipulate its structure.
- ☐ **C.** The On Initialize event is triggered after an Aggregate finishes fetching data and can be used to act upon the retrieved data before it's used in the Screen.
- ☐ **D.** The On Initialize event is triggered after the input parameter of a Block changes.

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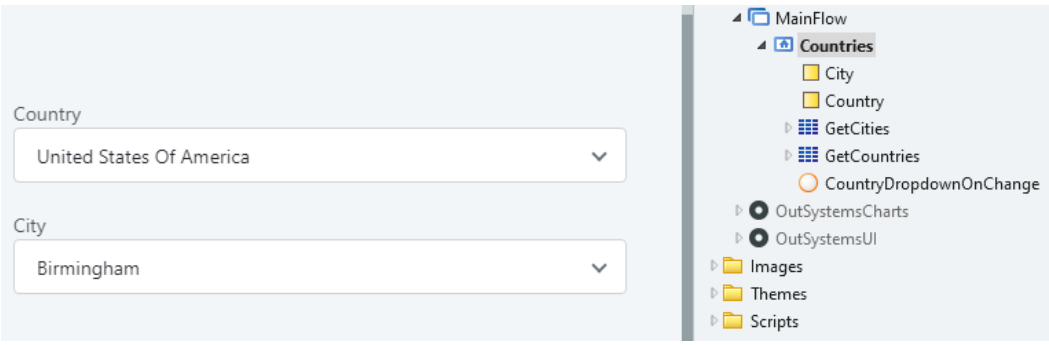
7. The following Screen has two Dropdowns, one to select a Country and one to select a City. The GetCountries and GetCities Aggregates provide the countries and the cities to be displayed in the respective dropdowns and are both set to be fetched At Start. Which of the following options is **not a valid step** if we want to just fetch the cities for the country selected in the respective dropdown?



- ☐ **A.** Set the Fetch property of the GetCities Aggregate to Only On Demand.
- ☐ **B.** Refresh the GetCities Aggregate in the OnChange Action of the Country Dropdown.
- ☐ **C.** Filter the GetCities Aggregate by the selected country.
- ☐ **D.** Call the GetCities Aggregate in the GetCountries' On After Fetch Event handler.

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8. Regarding Blocks in OutSystems reactive apps, which of the following options is correct?

- ☐ **A.** Blocks can only be instantiated on Screens.
- ☐ **B.** Blocks can be instantiated on Screens and other Blocks.
- ☐ **C.** Blocks can be instantiated on Client Actions on the Screen.
- ☐ **D.** Blocks can be instantiated on Screens and external HTML pages, using a special HTML tag.

9. Which of the following options is a **valid** usage of the Trigger Event node?

- ☐ **A.** The Trigger Event allows a Block to notify its parent (Screen or Block) that something relevant occurred in the scope of the Block.
- ☐ **B.** The Trigger Event allows a Screen to notify its children (Blocks) that something relevant occurred in the scope of the Screen.
- ☐ **C.** The Trigger Event allows a Block to notify its children (other Blocks) that something relevant occurred in the scope of the Block.
- ☐ **D.** The Trigger Event allows a Screen to notify its parent (Screen or Block) that something relevant occurred in the scope of the Screen.

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10. Consider a Form with a Save button with the Built-in Validations property set to **Yes**. When a user clicks on the Save button, some validations over the data submitted to the Form are automatically performed by OutSystems by default. Which validations are those?

- ☐ **A.** Check if the mandatory fields are filled in.
- ☐ **B.** Check if the mandatory fields are filled in and if the non-mandatory fields, that are later used in the logic, are also filled in.
- ☐ **C.** Check if the mandatory fields are filled in and if the data submitted by the user matches the data type expected in the input fields.
- ☐ **D.** Check if the mandatory fields are filled in and if the data submitted by the user matches the data type of the Form's data source.

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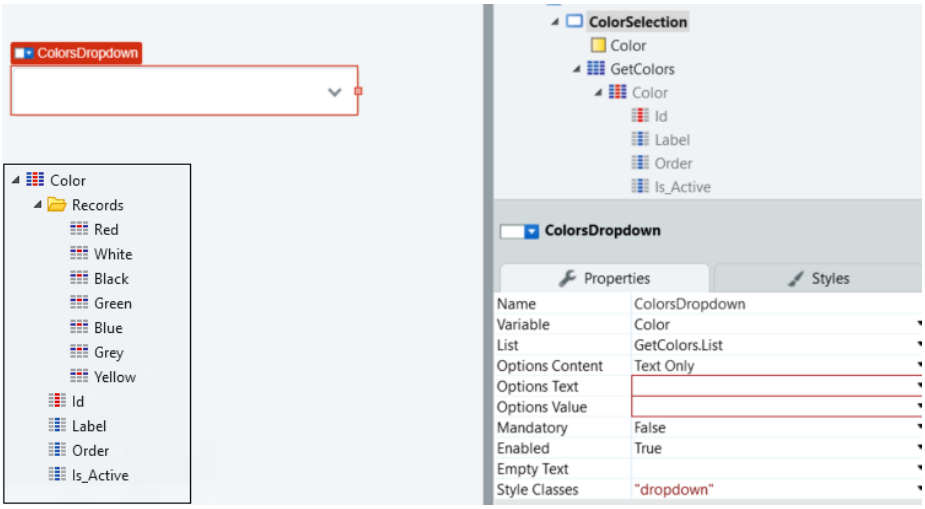
11. In the following scenario, we are implementing the ColorsDropdown widget which will allow a user to select a color. What should be set in the **Options Text** property to make sure that the names of the colors appear in the dropdown?



- ☐ **A.** Color.Id
- ☐ **B.** GetColors.Color.Label
- ☐ **C.** Color
- ☐ **D.** Color.Label

12. Considering a Button in a Screen, which of the following options **cannot** be set as its On Click Destination?

- ☐ **A.** Screen.
- ☐ **B.** Client Action.
- ☐ **C.** Block.
- ☐ **D.** External Site.

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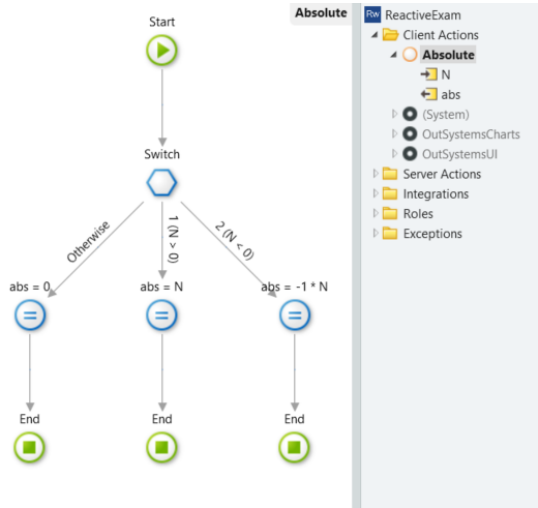
13. Consider the Action called *Absolute* which returns an absolute value (abs) of a number *N* passed as Input Parameter. When does the Action return 0 ?



- ☐ **A.** Never.
- ☐ **B.** When the input parameter (N) is less than zero.
- ☐ **C.** When the input parameter (N) is zero.
- ☐ **D.** When the input parameter (N) is greater than zero.

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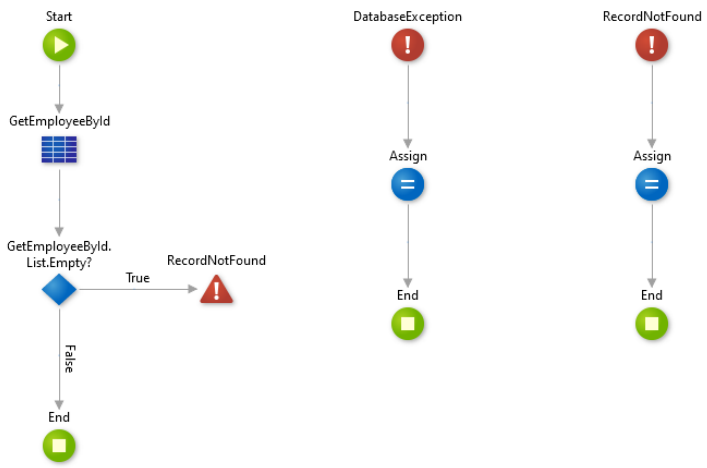
14. Consider the following Server Action. What happens if the *GetEmployeeById* Aggregate does not return any record?



- ☐ **A.** The DatabaseException flow is executed.
- ☐ **B.** The RecordNotFound flow is executed.
- ☐ **C.** No exception flow is executed.
- ☐ **D.** The module's global exception handler is executed.

15. Considering the Function property in Client Actions, which of the following options is correct?

- ☐ **A.** Setting the Function property to Yes restricts the Action to have only one Output Parameter.
- ☐ **B.** Setting the Function property to No ensures the Action can only be used in the module where it is defined.
- ☐ **C.** Setting the Function property to Yes is not possible, if the Action is exposed to other modules as Public.
- ☐ **D.** Setting the Function property to No ensures the Action can only be used in Screen Expressions.

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16. Considering that Michael is a user of the Orders application, with only the *OrdersAdmin* Role assigned to him, which of the following options is **correct**?

- ☐ **A.** Michael has access to Screens with the *Registered* Role checked.
- ☐ **B.** Michael does not have access to Screens with the *Anonymous* Role checked.
- ☐ **C.** Michael has access to Screens that have the *OrdersAdmin* Role checked, but not to Screens with the *Registered Role* checked.
- ☐ **D.** Michael has only access to Screens that have the *OrdersAdmin* Role checked.

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17. Which of the following options should **not** be a use case of client variables?

- ☐ **A.** Username.
- ☐ **B.** Password.
- ☐ **C.** Search filter keyword.
- ☐ **D.** ID of a user session.

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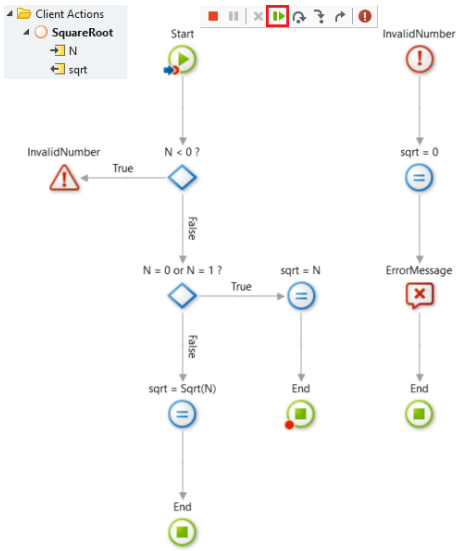
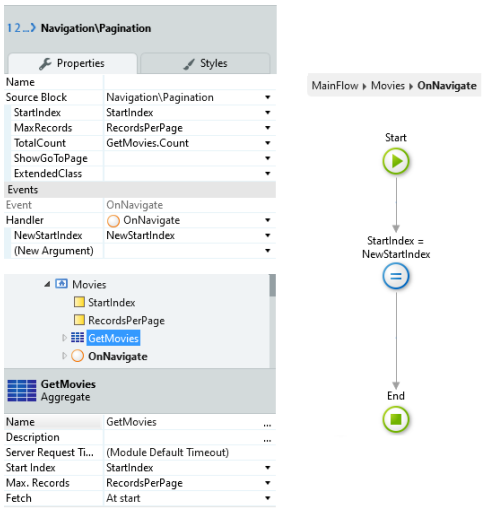
18. Consider the following Action, that calculates the square root (sqrt) of a positive decimal number (N). Knowing that the function was called with N = 0, and the debugger is stopped at the Start node, what will happen when the developer selects the **Continue (F9)** option highlighted in the picture?



- ☐ **A.** The Action will end, with sqrt = 0.
- ☐ **B.** The Action will throw an exception and sqrt will have no value.
- ☐ **C.** The debugger will stop in the N < 0 If node.
- ☐ **D.** The debugger will stop at the breakpoint in the End node.

19. Consider the following Pagination that is associated with an already implemented Table on a Screen. There are no errors in Service Studio, but when the user selects a new page (in the pagination widget) the results do not change on the Table. What is the reason for that behavior?



- ☐ **A.** The GetMovies Aggregate is not being refreshed in the OnNavigate Action.
- ☐ **B.** The Max. Records of the Aggregate should be equal to the total number of movies in the database.
- ☐ **C.** The Table is not being refreshed on the OnNavigate Action.
- ☐ **D.** The Max Records property of the Pagination should be set to GetMovies.Count and the TotalCount to RecordsPerPage.

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20. Consider a Screen that contains a Form to collect Customer data. The Form has a Save Button with the On Click Destination set to a SaveOnClick Action, which sends the data to the server to store it in the database. What is the best way to make sure that we do not send the data to the server when the mandatory Customer data fields have not been filled in?

- ☐ **A.** Just set the Built-in validations of the Save button to Yes.
- ☐ **B.** Perform custom validations for all inputs. If one fails, set the Valid property of the Form to False.
- ☐ **C.** Set the Built-in validations of the Save button to Yes and check if the Form's Valid property is True.
- ☐ **D.** Set the Built-in validations of the Save button to Yes and add an Exception Handler flow to handle invalid inputs.

Answers

1. A	6. A	11. D	16. A
2. C	7. D	12. C	17. B
3. A	8. B	13. C	18. D
4. D	9. A	14. B	19. A
5. B	10. C	15. A	20. C

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