Associate Reactive Developer

Sample Exam

Before Starting

This sample exam has 20 questions that will help you get ready for the 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 40 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. What is required to create a many-to-many (N-N) relationship between the Entities in the picture?
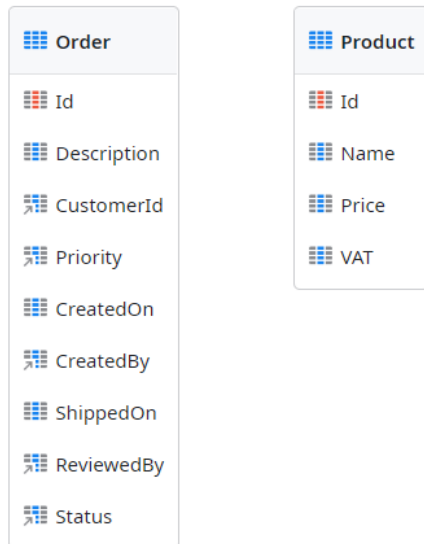
- ☐ **A.** Create a third Entity that contains two attributes of types Order Identifier and Product Identifier.
- ☐ **B.** Create a third Entity with a primary key of type Order Identifier and an attribute of type Product Identifier.
- ☐ **C.** Create an attribute of type Order Identifier in the Product 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. Which of the following statements is **true**?

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

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3. The image below shows an Aggregate. What will the attributes of the *GetOrdersShippingState.List.Current* record be?

☐ **A.** The two aggregation attributes: *ShippingState* and *Count*.

☐ **B.** The two aggregation attributes (*ShippingState* and *Count*) plus all the attributes of the Source Entities.

☐ **C.** Six attributes corresponding to the six visible columns in the Aggregate: *ShippingState, Count, Description, CreatedOn, ShippedOn* and *Priority*.

☐ **D.** The two aggregation attributes (*ShippingState* and *Count*) plus the columns used to calculate these aggregations.

4. In the Aggregate below 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.

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

GetOrders					

3 Sources | No Filters | No Sorts | No Test Values

Sources

Order	🖉 🔍 🗑
OrderStatus	🖉 🔍 🗑
Priority	🖉 🔍 🗑

Add source

Joins

⠿ 1 | Order ▾ | 🔲 With or Without ▾ | Priority ▾ | 🗑
 Order.Priority = Priority.Id

⠿ 2 | Order ▾ | 🔲 With or Without ▾ | OrderStatus ▾ | 🗑
 Order.Status = OrderStatus.Id

Order Description	Priority Id	Priority Priority	Order ShippedOn	Order CreatedOn	OrderStatus Label
Order for month of June (2021)	2	Low	2021-07-12	2021-06-04 00:00:00	Shipped
Order for month of May (2021)	3	High	2021-07-12	2021-05-29 00:00:00	Cancelled
Order for month of May (2021)	3	High	2021-07-11	2021-05-29 00:00:00	Pending
Order for month of May (2021)	2	Low	2021-07-09	2021-05-07 00:00:00	Shipped
Order for month of May (2021)	2	Low	2021-07-09	2021-05-19 00:00:00	New
Order for month of April (2021)	2	Low	2021-07-08	2021-04-17 00:00:00	New
Order for month of April (2021)	3	High	2021-07-08	2021-04-25 00:00:00	New
Order for month of April (2021)	3	High	2021-07-08	2021-04-10 00:00:00	New
Order for month of April (2021)	2	Low	2021-07-07	2021-04-09 00:00:00	New
Order for month of June (2021)	2	Low	2021-07-07	2021-06-17 00:00:00	New
Order for month of April (2021)	2	Low	2021-07-07	2021-04-01 00:00:00	New
Order for month of May (2021)	2	Low	2021-07-06	2021-05-10 00:00:00	New
Order for month of March (2021)	1	Medium	2021-07-05	2021-03-31 00:00:00	Cancelled

New Attribute

☐ **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.

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6. Which of the following sentences about the *On Initialize* lifecycle event 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 Screen below has two Dropdowns: one to select a Country and the other to select a City. The *GetCountries* and *GetCities* Aggregates fetch the data displayed in the dropdowns and both have the Fetch property set to At Start. Which of the following options **is not** a valid step to only fetch the cities of the country selected in the dropdown?
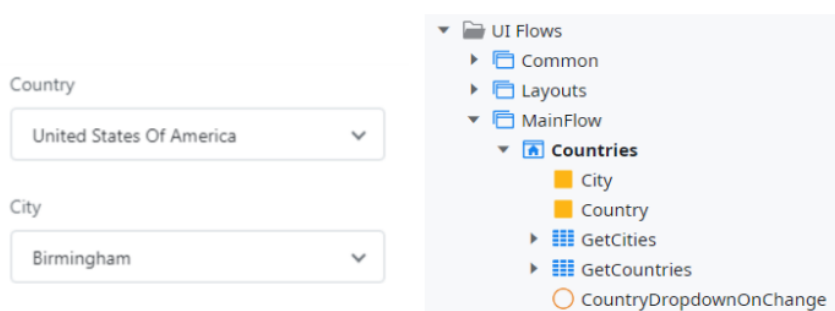
☐ **A.** Set the Fetch property of the *GetCities* Aggregate to Only On Demand.

☐ **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.

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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. A Form has a Save button with the Built-in Validations property set to **Yes**. Which validations are automatically performed when a user clicks the button?

☐ **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.

11. The CountriesDropdown will allow users to select a country. What should be set in the Options Text property to make sure that the names of the countries appear in the dropdown?

☐ **A.** *Country.Id*
☐ **B.** *GetCountries.Country.Label*
☐ **C.** *Country*
☐ **D.** *Country.Label*

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

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

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

Absolute

Start

Switch

Otherwise

1 (N > 0)

2 (N < 0)

abs = 0   abs = N   abs = -1 * N

End   End   End

Client Actions
  Absolute
    N
    abs
  (System)
  OutSystemsCharts
  OutSystemsUI
Server Actions
Integrations
Roles
Exceptions
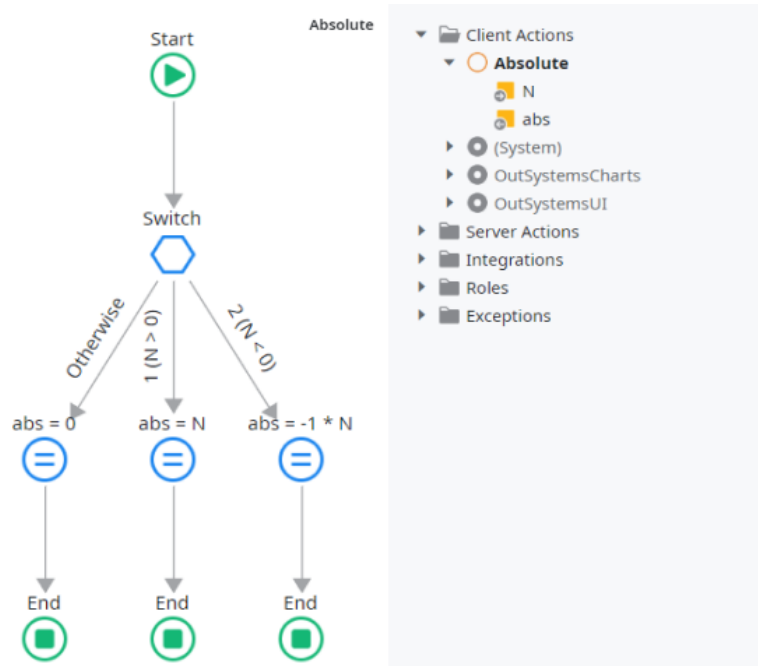
☐ **A.** Never.

☐ **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.

14. Consider the following Action. What happens if the *GetEmployeeById* Aggregate does not return any record?
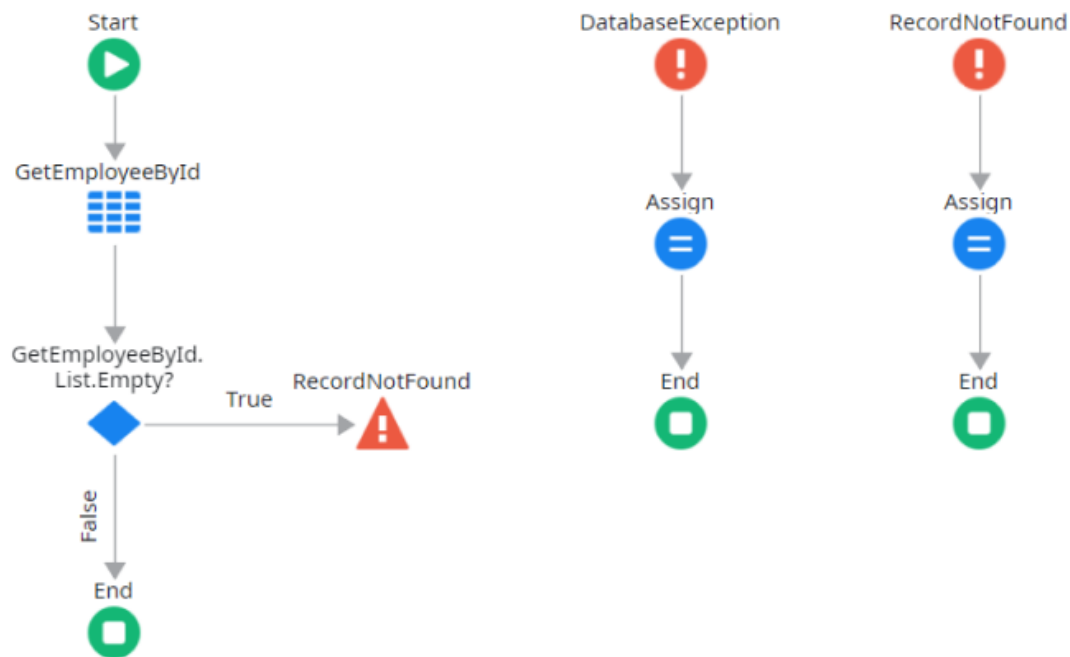
- ☐ **A.** The *DatabaseException* flow is executed.
- ☐ **B.** The *RecordNotFound* flow is executed.
- ☐ **C.** No exception flow is executed.
- ☐ **D.** The module's global exception handler is executed.

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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.

16. Michael is a user of the Orders application and only has 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 only has 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.

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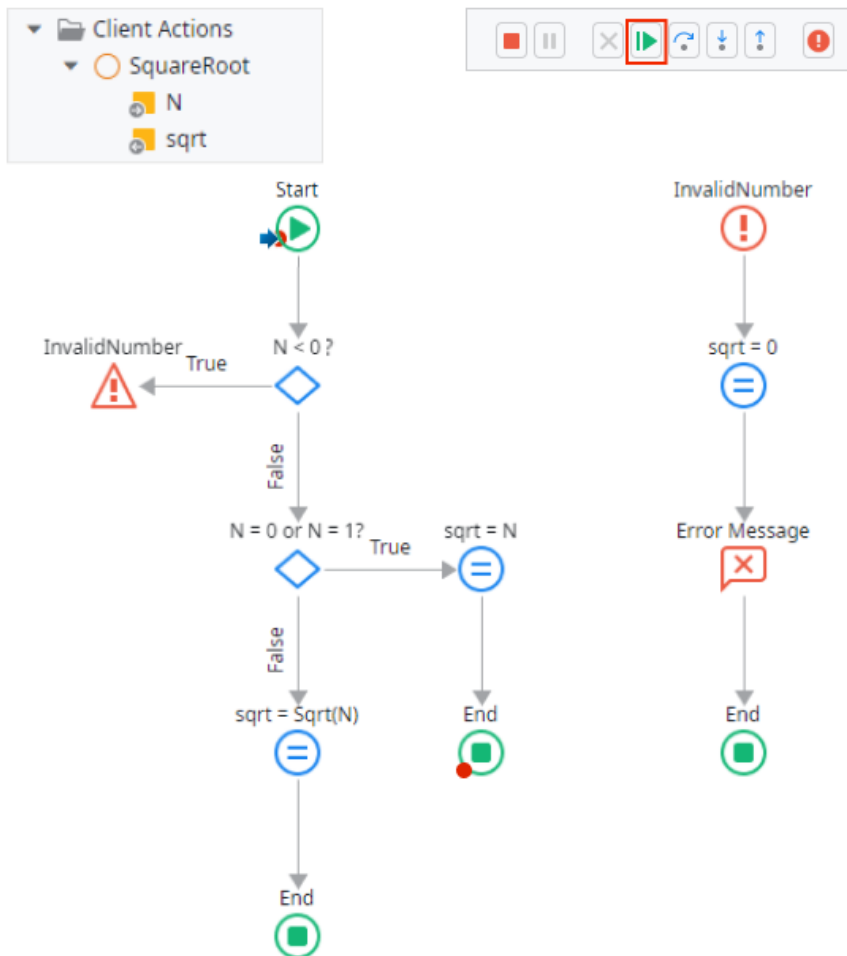
☐ **A.** The Action will end, with sqrt = 0.

☐ **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. The image shows a Pagination widget that is associated with a Table on a Screen that was already implemented. There are no error messages 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?
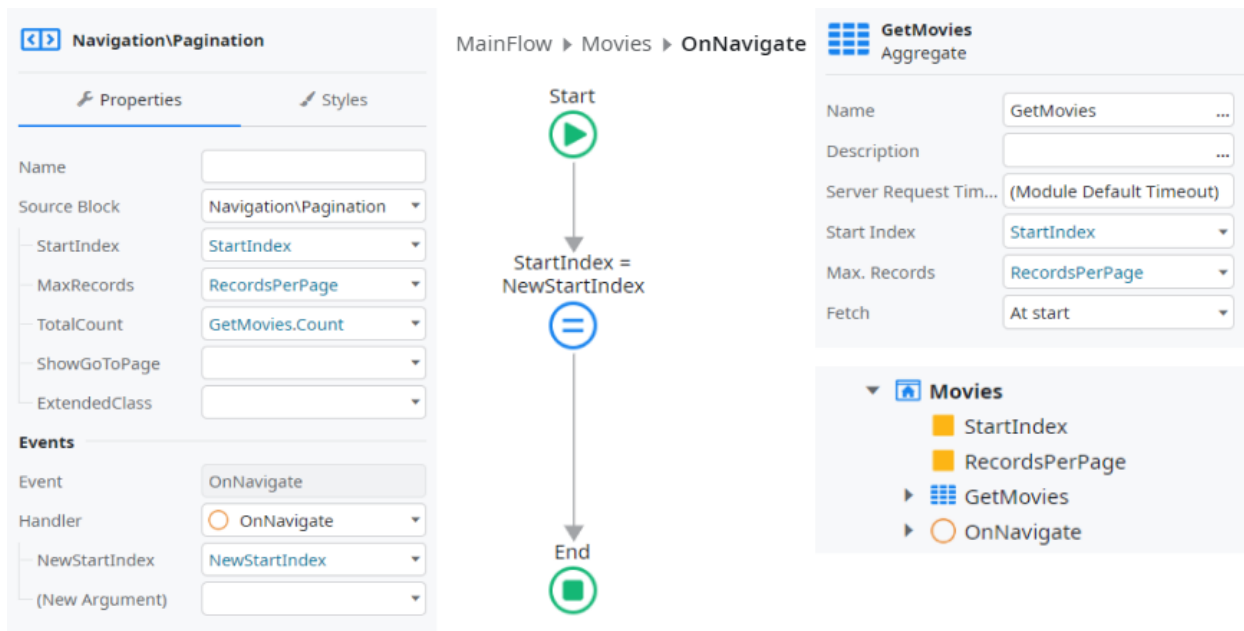
☐ **A.** The *GetMovies* Aggregate is not being refreshed in the *OnNavigate* Action.

☐ **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 MaxRecords property of the Pagination should be set to *GetMovies.Count* and the TotalCount to *RecordsPerPage*.

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20. A Screen contains a Form to collect Customer data. The Form has a Save Button with the On Click property set to a *SaveOnClick* Action, which sends the data to the server to store it in the database. The developer must ensure that the Action will **not** send the data to the server when the mandatory Customer data fields have not been filled in. What is the **best way** to do that?

☐ **A.** 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
2. C
3. A
4. D
5. B
6. A
7. D
8. B
9. A
10. C

11. D
12. C
13. C
14. B
15. A
16. A
17. B
18. D
19. A
20. C