

contextIsKey - all results

contextIsKey complete result bundle

Company: AsterVale Living

Evidence: Bundled AsterVale Living DataHub metadata

Change: customer_id varchar -> bigint

```
=====
IMPACT REPORT
=====
```

```
{
  "affected_assets": [
    {
      "critical": false,
      "hop": 1,
      "name": "fct_order_sales",
      "owners": [
        "commerce-analytics@astervale.demo"
      ]
    },
    {
      "critical": true,
      "hop": 2,
      "name": "loyalty_customer_value",
      "owners": [
        "loyalty-platform@astervale.demo"
      ]
    },
    {
      "critical": false,
      "hop": 2,
      "name": "regional_returns",
      "owners": [
        "store-operations@astervale.demo"
      ]
    },
    {
      "critical": true,
```

```
"hop": 3,
"name": "executive_revenue_dashboard",
"owners": [
  "finance-data@astervale.demo"
]
},
{
  "change": {
    "column": "customer_id",
    "current_type": "varchar",
    "proposed_type": "bigint",
    "source": "stg_orders.customer_id"
  },
  "company": "AsterVale Living",
  "evidence": {
    "confidence": "HIGH",
    "datahub_assets": 4,
    "hidden_sql_objects": 4,
    "regions": 5,
    "source": "Bundled AsterVale Living DataHub metadata"
  },
  "regional_exposure": [
    {
      "asset_names": [
        "fct_order_sales",
        "loyalty_customer_value",
        "executive_revenue_dashboard"
      ],
      "owners": [
        "commerce-analytics@astervale.demo",
        "loyalty-platform@astervale.demo",
        "finance-data@astervale.demo"
      ],
      "policy_flags": [
        "CUSTOMER_DATA",
        "CA_PRIVACY_REVIEW",
        "EXECUTIVE_REPORTING"
      ],
      "region": "NORTHEAST",
```

```
"risk": "HIGH",
"sql_objects": [
  "usp_reconcile_loyalty_customer",
  "vw_customer_revenue_bridge"
],
{
  "asset_names": [
    "fct_order_sales",
    "regional_returns",
    "executive_revenue_dashboard"
  ],
  "owners": [
    "commerce-analytics@astervale.demo",
    "store-operations@astervale.demo",
    "finance-data@astervale.demo"
  ],
  "policy_flags": [
    "EXECUTIVE_REPORTING"
  ],
  "region": "SOUTH",
  "risk": "MEDIUM",
  "sql_objects": [
    "usp_match_regional_returns",
    "vw_customer_revenue_bridge"
  ]
},
{
  "asset_names": [
    "fct_order_sales",
    "regional_returns",
    "executive_revenue_dashboard"
  ],
  "owners": [
    "commerce-analytics@astervale.demo",
    "store-operations@astervale.demo",
    "finance-data@astervale.demo"
  ],
  "policy_flags": [
```

```
"EXECUTIVE_REPORTING"
],
"region": "MIDWEST",
"risk": "MEDIUM",
"sql_objects": [
"usp_match_regional_returns",
"vw_customer_revenue_bridge"
]
},
{
"asset_names": [
"fct_order_sales",
"loyalty_customer_value",
"regional_returns",
"executive_revenue_dashboard"
],
"owners": [
"commerce-analytics@astervale.demo",
"loyalty-platform@astervale.demo",
"store-operations@astervale.demo",
"finance-data@astervale.demo"
],
"policy_flags": [
"CUSTOMER_DATA",
"CA_PRIVACY_REVIEW",
"EXECUTIVE_REPORTING"
],
"region": "WEST",
"risk": "HIGH",
"sql_objects": [
"usp_reconcile_loyalty_customer",
"usp_match_regional_returns",
"vw_customer_revenue_bridge"
]
},
{
"asset_names": [],
"owners": [],
"policy_flags": [
```

```
"REGION_METADATA_MISSING"
],
"region": "UNKNOWN",
"risk": "REVIEW",
"sql_objects": [
"usp_export_customer_segments"
]
}
],
"sql_dependencies": [
{
"confidence": "HIGH",
"manual_review_reason": null,
"match_kind": "convert",
"object_name": "usp_reconcile_loyalty_customer",
"object_type": "SQL_STORED_PROCEDURE",
"proposed_sql": "SELECT customer_id FROM loyalty.member_snapshot WHERE TRY_CONVERT(BIGINT,
customer_id) = @customer_id;",
"regions": [
"NORTHEAST",
"WEST"
],
"schema_name": "loyalty",
"snippet": "SELECT customer_id FROM loyalty.member_snapshot WHERE TRY_CONVERT(INT,
customer_id) = @customer_id;"
},
{
"confidence": "MEDIUM",
"manual_review_reason": "Verify both join operands are BIGINT before changing the source.",
"match_kind": "join",
"object_name": "usp_match_regional_returns",
"object_type": "SQL_STORED_PROCEDURE",
"proposed_sql": null,
"regions": [
"SOUTH",
"MIDWEST",
"WEST"
],
"schema_name": "operations",
```

```

"snippet": "SELECT r.return_id FROM operations.returns r JOIN commerce.orders o ON
r.customer_id = o.customer_id;"
},
{
"confidence": "HIGH",
"manual_review_reason": null,
"match_kind": "cast",
"object_name": "vw_customer_revenue_bridge",
"object_type": "VIEW",
"proposed_sql": "SELECT TRY_CAST(customer_id AS BIGINT) AS customer_id, net_revenue FROM
finance.revenue_daily;",
"regions": [
"NORTHEAST",
"SOUTH",
"MIDWEST",
"WEST"
],
"schema_name": "finance",
"snippet": "SELECT CAST(customer_id AS INT) AS customer_id, net_revenue FROM
finance.revenue_daily;"
},
{
"confidence": "LOW",
"manual_review_reason": "Contains dynamic SQL, so the referenced object and runtime type need
manual review.",
"match_kind": "dynamic_sql",
"object_name": "usp_export_customer_segments",
"object_type": "SQL_STORED_PROCEDURE",
"proposed_sql": null,
"regions": [],
"schema_name": "exports",
"snippet": "DECLARE @sql nvarchar(max) = N'SELECT customer_id FROM ' + @table; EXEC
sys.sp_executesql @sql;"
}
],
"unresolved_risks": [
"Hidden consumers outside the observed lineage may still depend on `customer_id`.",
"Critical downstream assets require coordinated rollout: executive_revenue_dashboard,
loyalty_customer_value.",
"Verify both join operands are BIGINT before changing the source.",
"Contains dynamic SQL, so the referenced object and runtime type need manual review."
]

```

```
]
}
```

```
=====
DISCOVERY QUERY
=====
```

```
-- Read-only contextIsKey dependency discovery for SQL Server
```

```
DECLARE @column_name sysname = N'customer_id';
```

```
SELECT
```

```
SCHEMA_NAME(o.schema_id) AS schema_name,
```

```
o.name AS object_name,
```

```
o.type_desc AS object_type,
```

```
m.definition
```

```
FROM sys.sql_modules AS m
```

```
JOIN sys.objects AS o ON o.object_id = m.object_id
```

```
WHERE m.definition LIKE N'% ' + @column_name + N'% '
```

```
ORDER BY schema_name, object_name;
```

```
=====
PROPOSED FIXES
=====
```

```
-- contextIsKey generated review draft
```

```
-- No statement in this file has been executed.
```

```
-- loyalty.usp_reconcile_loyalty_customer [HIGH]
```

```
SELECT customer_id FROM loyalty.member_snapshot WHERE TRY_CONVERT(BIGINT, customer_id) =  
@customer_id;
```

```
-- operations.usp_match_regional_returns [MEDIUM]
```

```
-- MANUAL REVIEW: Verify both join operands are BIGINT before changing the source.
```

```
-- Original: SELECT r.return_id FROM operations.returns r JOIN commerce.orders o ON  
r.customer_id = o.customer_id;
```

```
-- finance.vw_customer_revenue_bridge [HIGH]
```

```
SELECT TRY_CAST(customer_id AS BIGINT) AS customer_id, net_revenue FROM finance.revenue_daily;
```

```
-- exports.usp_export_customer_segments [LOW]
```

```
-- MANUAL REVIEW: Contains dynamic SQL, so the referenced object and runtime type need manual review.

-- Original: DECLARE @sql nvarchar(max) = N'SELECT customer_id FROM ' + @table; EXEC sys.sp_executesql @sql;
```

```
=====
VALIDATION QUERIES
=====
```

```
-- Validate conversion coverage before cutover
SELECT
COUNT_BIG(*) AS total_rows,
SUM(CASE WHEN customer_id IS NOT NULL AND TRY_CONVERT(BIGINT, customer_id) IS NULL
THEN 1 ELSE 0 END) AS conversion_failures
FROM stg_orders;
```

```
-- Validate downstream null and key behavior after migration
SELECT customer_id, COUNT_BIG(*) AS row_count
FROM stg_orders
GROUP BY customer_id
HAVING customer_id IS NULL;
```

```
=====
ROLLBACK RUNBOOK
=====
```

```
-- ROLLBACK RUNBOOK, owner approval required
-- 1. Keep the original customer_id VARCHAR contract available during rollout.
-- 2. Route consumers back to the original field or compatibility view.
-- 3. Revert stored procedure drafts in reverse dependency order.
-- 4. Re-run validation queries and confirm regional owners have recovered.
```

```
=====
SARIF RESULTS
=====
```

```
{
"$schema": "https://json.schemastore.org/sarif-2.1.0.json",
"runs": [
```

```
{
  "results": [
    {
      "level": "note",
      "locations": [
        {
          "physicalLocation": {
            "artifactLocation": {
              "uri": "database://loyalty/usp_reconcile_loyalty_customer"
            }
          }
        }
      ],
      "message": {
        "text": "Review generated convert migration fix."
      },
      "properties": {
        "confidence": "HIGH"
      },
      "ruleId": "changeproof/convert"
    },
    {
      "level": "warning",
      "locations": [
        {
          "physicalLocation": {
            "artifactLocation": {
              "uri": "database://operations/usp_match_regional_returns"
            }
          }
        }
      ],
      "message": {
        "text": "Verify both join operands are BIGINT before changing the source."
      },
      "properties": {
        "confidence": "MEDIUM"
      },
      "ruleId": "changeproof/join"
    }
  ]
}
```

```
,
{
  "level": "note",
  "locations": [
    {
      "physicalLocation": {
        "artifactLocation": {
          "uri": "database://finance/vw_customer_revenue_bridge"
        }
      }
    }
  ],
  "message": {
    "text": "Review generated cast migration fix."
  },
  "properties": {
    "confidence": "HIGH"
  },
  "ruleId": "changeproof/cast"
},
{
  "level": "warning",
  "locations": [
    {
      "physicalLocation": {
        "artifactLocation": {
          "uri": "database://exports/usp_export_customer_segments"
        }
      }
    }
  ],
  "message": {
    "text": "Contains dynamic SQL, so the referenced object and runtime type need manual review."
  },
  "properties": {
    "confidence": "LOW"
  },
  "ruleId": "changeproof/dynamic_sql"
}
```

```
],  
  "tool": {  
    "driver": {  
      "name": "contextIsKey",  
      "version": "0.1.0"  
    }  
  }  
},  
  "version": "2.1.0"  
}
```