

# Report

As a result of a calculation request to the MRE, it produces a report which contains all the information for each lender, over several loan amount cases.

## Schema

JSON\_SCHEMA:BlackFinTech/MortgageRecEngine.Backend/develop/functions/lib/schemas/report.json

2026-06-02

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{ "$schema": "http://json-schema.org/draft-07/schema#", "title": "Report Schema", "type": "object", "description": "Report details and results", "properties": { "Id": { "type": "string", "description": "Unique identifier for the report" }, "Cases": { "type": "array", "description": "Array of case results", "items": { "type": "object", "properties": { "Id": { "type": "integer", "description": "Numerical identifier for the case" }, "LoanAmount": { "type": "number", "description": "The total loan amount for this case" }, "LenderResult": { "type": "array", "description": "Results from each lender", "items": { "type": "object", "properties": { "Lender": { "type": "object", "description": "Information about the lender", "properties": { "Id": { "type": "integer", "description": "Numerical identifier for the lender" }, "Key": { "type": "string", "description": "Unique key code for the lender", "enum": [ "aia", "anz", "asb", "bnz", "cop", "kiwibank", "liberty", "sbs", "tsb", "westpac" ] }, "Name": { "type": "string", "description": "Display name of the lender" }, "Logo": { "type": "string", "description": "URL to the lender's logo image" } }, "required": [ "Id", "Key", "Name" ] }, "Result": { "type": "object", "description": "Detailed calculation results from the lender", "properties": { "AssessedIncome": { "type": "array", "description": "Income assessment details", "items": { "type": "object", "properties": { "Group": { "type": "string", "description": "Group of the income, usually how the income is grouped in spreadsheet i.e. \"Applicant Income\" }, "Label": { "type": "string", "description": "Label of the income, usually how the income is referenced/named in spreadsheet i.e. \"Applicant Income {{Applicant1.Name}}\" }, "Entered": { "type": "object", "description": "Values that are entered into the lender spreadsheet for this specific income", "properties": { "Amount": { "type": [ "number", "null" ], "description": "Amount" }, "Frequency": { "type": [ "string", "null" ], "description": "What is the frequency of this income, usually \"Monthly\" } }, "Assessed": { "type": "object", "description": "Values that are assessed by the lender spreadsheet (including \"shading\" that lenders apply to the entered values)", "properties": { "Amount": { "type": "number", "description": "Amount" }, "Frequency": { "type": "string", "description": "What is the assessed frequency of this income, likely in all cases" } } } } } } } } } } }
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g":{"type":"object","description":"Servicing summary/pointer object that indicates which servicing metric (NSR or UMI) is being used and provides a roll-up status","properties":{"Type":{"type":"string","description":"Type of servicing metric being used - tells client which object (NSR or UMI) to look at","enum":["NSR","UMI","N/A"]},"Status":{"type":"string","description":"Roll-up status from the relevant NSR or UMI object","enum":["Pass","Fail","N/A"]},"required":["Type","Status"]},"LVR":{"type":"array","description":"Loan to Value Ratio assessments","items":{"type":"object","properties":{"Reference":{"type":"string","description":"Reference identifier for the LVR assessment"},"SecurityId":{"type":["integer","null"],"description":"ID of the Security being assessed"},"LVRLimit":{"type":"array","description":"LVR limit factors","items":{"type":"object","properties":{"Label":{"type":"string","description":"Label for the limit factor i.e. 'Property Type'}","Description":{"type":"string","description":"description/extra information for this LVRLIMIT, i.e. '{Security.PropertyType}' or 'Unknown'}}},"MaxLVR":{"type":"number","description":"Between 0 and 1 (inclusive), represents the maximum accepted lvr value}}},"required":["Label","Description","MaxLVR"]},"Value":{"type":"number","description":"Calculated LVR value"},"RequiredMaxLVR":{"type":"number","description":"Maximum allowed LVR value"},"Status":{"type":"string","description":"Pass/Fail status of the LVR assessment","enum":["Pass","Fail","N/A"]},"required":["Reference","Value","RequiredMaxLVR","Status"]},"LEM":{"type":"array","description":"Low Equity Margin assessments","items":{"type":"object","properties":{"Label":{"type":"string","description":"Label for the LEM assessment"},"SecurityId":{"type":["integer","null"],"description":"ID of the Security being assessed"},"Assessed":{"type":"number","description":"Assessed LVR value"},"Margin":{"type":"number","description":"Margin percentage"},"Amount":{"type":"number","description":"Calculated LEM amount}}},"required":["Label","Assessed","Margin","Amount"]},"DTI":{"type":"object","description":"Debt to Income ratio assessment","properties":{"TotalIncome":{"type":"number","description":"Total income used for DTI calculation"},"TotalDebt":{"type":"number","description":"Total debt used for DTI calculation"},"Value":{"type":"number","description":"Calculated DTI value"},"RequiredMaxDTI":{"type":["number","string"],"description":"Maximum allowed DTI value or indication if not applicable"},"Status":{"type":"string","description":"Pass/Fail status of the DTI assessment","enum":["Pass","Fail","N/A"]},"required":["Value","Status"]},"Deposit":{"type":"object","description":"Deposit details","properties":{"Amount":{"type":"number","description":"Deposit amount}}},"required":["Amount"]},"MaxLoanAmount":{"type":"number","description":"Estimated
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maximum amount the applicants can borrow from this lender based on their minimum servicing requirements, standard interest rate, and maximum loan term. Does not assess LVR limits, DTI limits, or any other product rules.}}, "required": ["AssessedIncome", "AssessedExpense", "TotalMonthlyIncome", "TotalMonthlyExpense", "UMI", "Servicing"]}, "Warnings": {"type": "array", "description": "Warning messages from the lender's assessment", "items": {"type": "object", "properties": {"Message": {"type": "string", "description": "Warning message text"}, "ReferenceObjectType": {"type": ["string", "null"], "description": "Type of object the warning refers to"}, "ReferenceObjectId": {"type": ["string", "integer", "null"], "description": "ID of the object the warning refers to"}, "Reference": {"type": "string", "description": "Reference path for the warning"}}, "required": ["Message", "Reference"]}}, "Errors": {"type": "array", "description": "Error messages from the lender's assessment", "items": {"type": "object", "properties": {"Message": {"type": "string", "description": "Error message text"}, "ReferenceObjectType": {"type": ["string", "null"], "description": "Type of object the error refers to"}, "ReferenceObjectId": {"type": ["string", "integer", "null"], "description": "ID of the object the error refers to"}, "Reference": {"type": "string", "description": "Reference path for the error"}}, "required": ["Message", "Reference"]}}, "Resources": {"type": "array", "description": "Additional resources related to the assessment", "items": {"type": "object", "properties": {"Type": {"type": "string", "description": "Type of resource", "enum": ["Image", "Document", "Link"]}, "Reference": {"type": "string", "description": "Reference path the resource relates to"}, "URL": {"type": "string", "description": "URL to the resource"}}, "required": ["Type", "Reference", "URL"]}}, "Accuracy": {"type": "number", "description": "Accuracy score of the assessment (0-1)", "minimum": 0, "maximum": 1}, "Version": {"type": "object", "description": "Version information for the lender's assessment model", "properties": {"VersionNumber": {"type": "string", "description": "Version number"}, "ReleaseDate": {"type": "string", "description": "Release date of the version", "format": "date"}, "VersionReleaseNote": {"type": "string", "description": "Release notes for the version"}}, "required": ["VersionNumber", "ReleaseDate"]}, "SpreadsheetFileURL": {"type": ["string", "null"], "description": "Download URL to the spreadsheet file for this lender result. Example URL: https://api.mre.test.blackfin.tools/engine/download-spreadsheet?report_id=ZmkZK9f8&case_id=1&lender=sbs . Value can be `null` when spreadsheet download is not available for a lender i.e. Liberty.}}, "required": ["Lender", "Result", "Accuracy"]}}}, "required": ["Id", "LenderResult"]}, "Accuracy": {"type": "number", "description": "Overall accuracy score of the report (0-1)", "minimum": 0, "maximum": 1}}, "required": ["Id", "Cases"]}
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