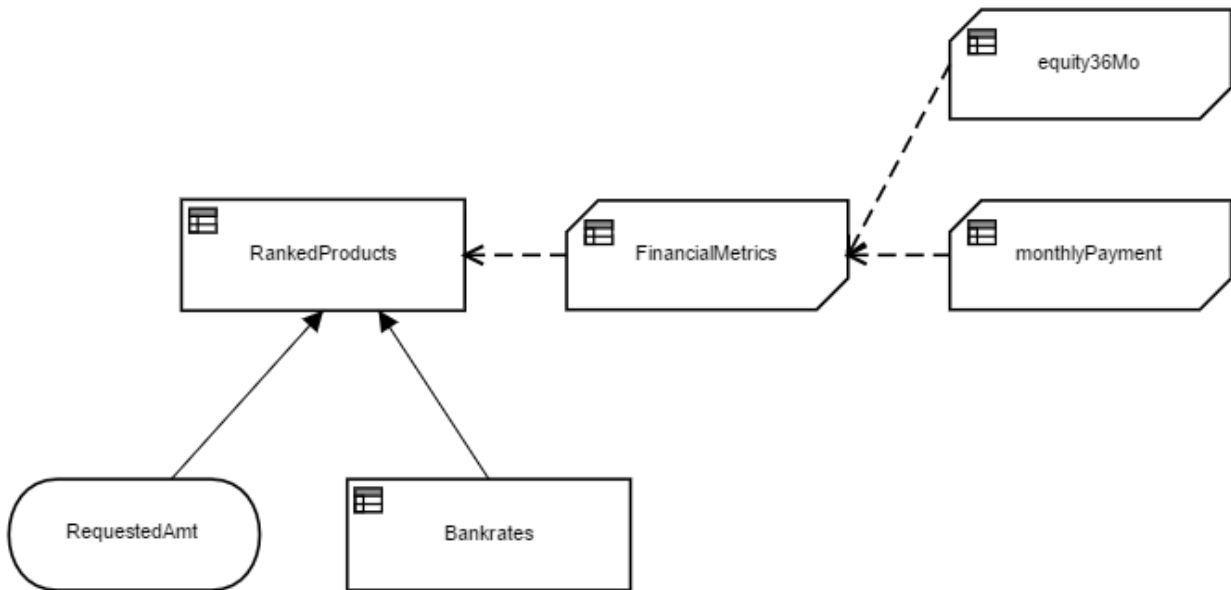


Decision Requirement Diagram



Elements

equity36Mo (Business Knowledge Model)

Output Data Type

| | |
|------|--------|
| Type | Number |
|------|--------|

Decision Logic (Boxed Function)

| equity36Mo | |
|---|---|
| F | $(p(\text{Number}), r(\text{Number}), n(\text{Number}), \text{pmt}(\text{Number}))$ |
| $p * (1 + r/12)^{**n} - \text{pmt} * (-1 + (1 + r/12)^{**n}) / r$ | |

RankedProducts (Decision)

Output Data Type

| | |
|------|-----------------|
| Type | tRankedProducts |
|------|-----------------|

Decision Logic (Boxed Context)

| RankedProducts | |
|--------------------------------|--|
| metricsTable (tMetrics) | for i in Bankrates return FinancialMetrics(i,RequestedAmt) |
| rankByRate (tMetrics) | sort(metricsTable, function(x,y) x.rate<y.rate) |
| rankByDownPmt (tMetrics) | sort(metricsTable, function(x,y) x.downPmtAmt<y.downPmtAmt) |
| rankByMonthlyPmt (tMetrics) | sort(metricsTable, function(x,y) x.paymentAmt<y.paymentAmt) |
| rankByEquityPct (tMetrics) | sort(metricsTable, function(x,y) x.equity36moPct>y.equity36moPct) |



FinancialMetrics (Business Knowledge Model)

Output Data Type

| | |
|------|----------|
| Type | tMetrics |
|------|----------|

Decision Logic (Boxed Function Context)

| FinancialMetrics | |
|--|---------------------------------|
| (product(tLoanProduct), requestedAmt(Number)) | |
| lenderName (Text) | product.lenderName |
| rate (Number) | product.rate |
| points (Number) | product.points |
| fee (Number) | product.fee |
| loanAmt (Number) | requestedAmt*(1+points/100)+fee |
| downPmtAmt (Number) | 0.2*loanAmt |

| | |
|---------------------------|--|
| paymentAmt (Number) | monthlyPayment(loanAmt,rate,360) |
| equity36moPct (Number) | 1 - equity36Mo(loanAmt, rate, 36, paymentAmt) /requestedAmt*0.8 |

monthlyPayment (Business Knowledge Model)

Output Data Type

| | |
|------|--------|
| Type | Number |
|------|--------|

Decision Logic (Boxed Function)

| | |
|---------------------------|-----------------------------------|
| monthlyPayment | |
| F | (p(Number), r(Number), n(Number)) |
| $p*r/12/(1-(1+r/12)**-n)$ | |

☐ RequestedAmt (Input Data)

Output Data Type

| | |
|------|--------|
| Type | Number |
|------|--------|

Bankrates (Decision)

Output Data Type

| | |
|------|------------|
| Type | tLoanTable |
|------|------------|

Decision Logic (Relation)

| Bankrates | | | |
|------------------|--------|--------|-----|
| lenderName | rate | points | fee |
| "Oceans Capital" | .03500 | 0 | 0 |

| | | | |
|--------------------|--------|-----|------|
| "eClick Lending" | .03200 | 1.1 | 2700 |
| "eClickLending" | .03375 | 0.1 | 1200 |
| "AimLoan" | .03000 | 1.1 | 3966 |
| "Home Loans Today" | .03125 | 1.1 | 285 |
| "Sebonic" | .03125 | 0.1 | 4028 |
| "AimLoan" | .03125 | 0.1 | 4317 |
| "eRates Mortgage" | .03125 | 1.1 | 2518 |
| "Home Loans Today" | .03250 | 0.1 | 822 |
| "AimLoan" | .03250 | 0 | 1995 |