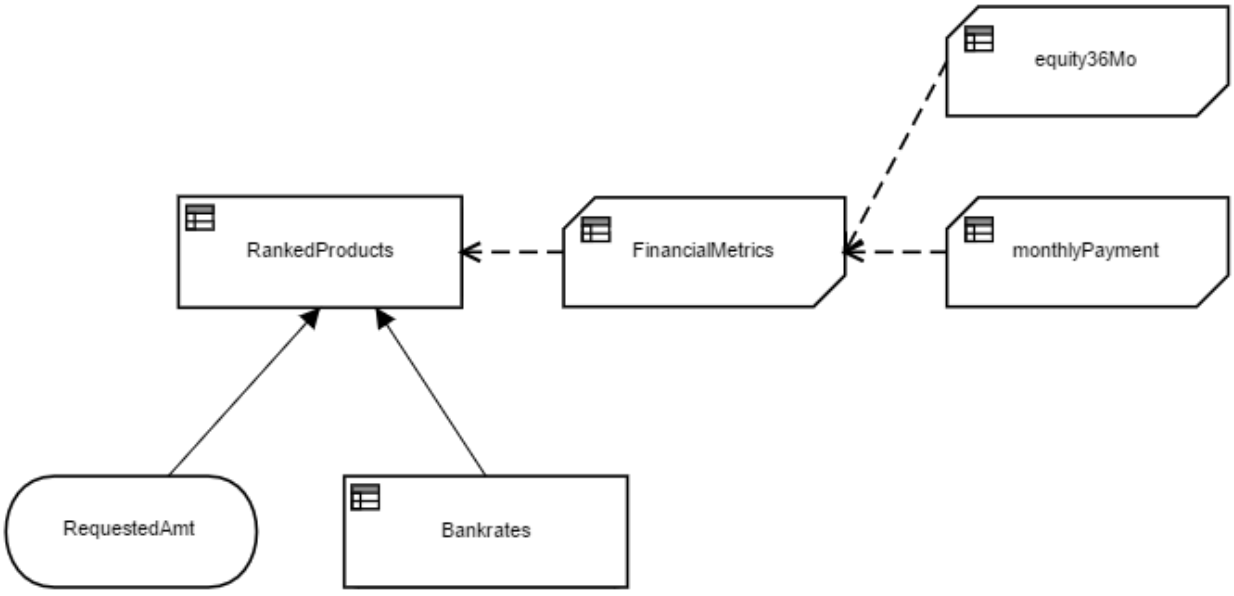
Decision Requirement Diagram



Elements

equity36Mo (Business Knowledge Model)

Output Data Type

Type	Number

Decision Logic (Boxed Function)

equity36Mo	
F	(p*(Number)* , r*(Number)* , n*(Number)* , pmt*(Number)*)
`p*(1+r/12)**n - pmt*(-1+(1+r/12)**n)/r`	

RankedProducts (Decision)

Output Data Type

Type	tMetrics

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	`sort(metricsTable, function(x,y) x.downPmtAmt<y.downPmtAmt)`
rankByMonthlyPmt	`sort(metricsTable, function(x,y) x.paymentAmt<y.paymentAmt)`
rankByEquityPct	`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	`product.lenderName`
rate	`product.rate`
points	`product.points`
fee	`product.fee`

loanAmt	`requestedAmt*(1+points/100)+fee`
downPmtAmt	`0.2*loanAmt`
paymentAmt	`monthlyPayment(loanAmt,rate,360)`
equity36moPct	`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