Mortgager Project Design

User input principal, annualInt, and termYears.

Set valid=false

If (principal is greater than 0) then

Valid is true

Else

Output: “enter a positive, nonzero principal”

End if

Setting filename output with name “Amortization.txt”

if(valid is true) then

set monthlyInt = (annualInt/12)/100

set termMonths = termYears\*12

set monthlyPay = ((principal\*monthlyInt)\*pow((1+monthlyInt),termMonths))/(pow((1+monthlyInt), termMonths)-1)

set totalPaid = 0

set interestAccured =0

write to file (summary table): Principal: principal, ARP: annualInt, Years: termYears, Payment: monthlyPay

Write to file (schedule table): Month#, Balance Owed, Interest Accrued, Payment made.

For loop through i, set to 0, until it is equal to termMonths

If principal is greater than 0 then

interestAccured = principal\*monthlyInt

else

interestAccured = 0

monthlyPay = 0

principal = 0

end if

write to file: i (month number), principal, interestAccured, monthlyPay

principal = (principal+interestAccured)-monthlyPay

totalPaid += monthlyPay

end for loop

set totalInt = totalPaid-principal

write to file (end table): Total Interest totalInt

write to file : Total paid: totalPaid

inform user that output is in file “Amortization.txt”

close Amortization.txt

end valid if