```
globals [

  bankmoney-requested

  reservebank

  bankdepo

  bankloan

  xmax

  ymax

  wealthy

  unaffordable

  moderate

  maxincome

]


turtles-own [

  currentlysaving

  money-requested

  amountinwallet

  temporaryloan

  wealth

  user

]




to setup

  clear-all

  initialize-settings

  create-turtles people [turtlessetup]
```

```
  classpoll

  banksetup

  set xmax 500

  set ymax (2 * totalmoney)

  reset-ticks

end



to initialize-settings

  set wealthy 0

  set unaffordable 0

  set moderate 0

  set maxincome 10

end



to turtlessetup

  set shape "person"

  setxy random-xcor random-ycor

  set amountinwallet (random 2 * maxincome)

  set currentlysaving 0

  set money-requested 0

  set wealth 0

  set user -1

  get-color

end



to banksetup

  set bankmoney-requested 0

  set reservebank 0
```

```
    set bankdepo 0

    set bankloan 0

end



to go

  ask turtles [runbusiness]

  ask turtles [

    remainingbalance-books

    get-color

  ]

  summarybalance

  classpoll

  tick

end



to classpoll

  set wealthy (countturtles with [currentlysaving > maxincome])

  set unaffordable (countturtles with [money-requested > maxincome])

  set moderate (countturtles) - (wealthy + unaffordable)

end



to runbusiness

  rt random 360

  fd 1



to remainingbalance-books
```

```
  ifelse (amountinwallet < 0)

   [ifelse (currentlysaving >= (- amountinwallet))

     [draw-money (- amountinwallet)]

     [if (currentlysaving > 0)

       [draw-money currentlysaving]

      set temporaryloan bankloan

      ifelse (temporaryloan >= (- amountinwallet))

        [takingloan(- amountinwallet)]

        [takingloantemporaryloan]

     ]

   ]

   [depositiinsavings amountinwallet]


  if (money-requested > 0) and (currentlysaving > 0) [

    ifelse (currentlysaving >= money-requested)

      [draw-money money-requested

       payloan money-requested]

      [draw-money currentlysaving

       payloan amountinwallet]

  ]
end




to summarybalance

  set bankdepo sum [currentlysaving] of turtles

  set bankloan sum [money-requested] of turtles

  set reservebank ((reserves / 100) * bankdepo)

  set bankloan (bankdepo - (reservebank + bankloan))
```

```
end


to depositiinsavings [totalamount]
  set amountinwallet (amountinwallet - totalamount)
  set currentlysaving (currentlysaving + totalamount)
end


to draw-money [totalamount]
  set amountinwallet (amountinwallet + totalamount)
  set currentlysaving (currentlysaving - totalamount)
end



to payloan [totalamount]
  set money-requested (money-requested - totalamount)
  set amountinwallet (amountinwallet - totalamount)
  set bankloan (bankloan + totalamount)
end


to takingloan[totalamount]
  set money-requested (money-requested + totalamount)
  set amountinwallet (amountinwallet + totalamount)
  set bankloan (bankloan - totalamount)
end



to get-color
  set color white
```

```
  if (currentlysaving > maxincome) [set color blue]

  if (money-requested > maxincome)  [set color orange]

  set wealth (currentlysaving - money-requested)
end



to-report currentlysaving-total

  report sum [currentlysaving] of turtles
end


to-report money-requested-total

  report sum [money-requested] of turtles
end


to-report totalamountinwallets

  report sum [amountinwallet] of turtles
end


to-report totalmoney

  report sum [amountinwallet + currentlysaving] of turtles
end
```