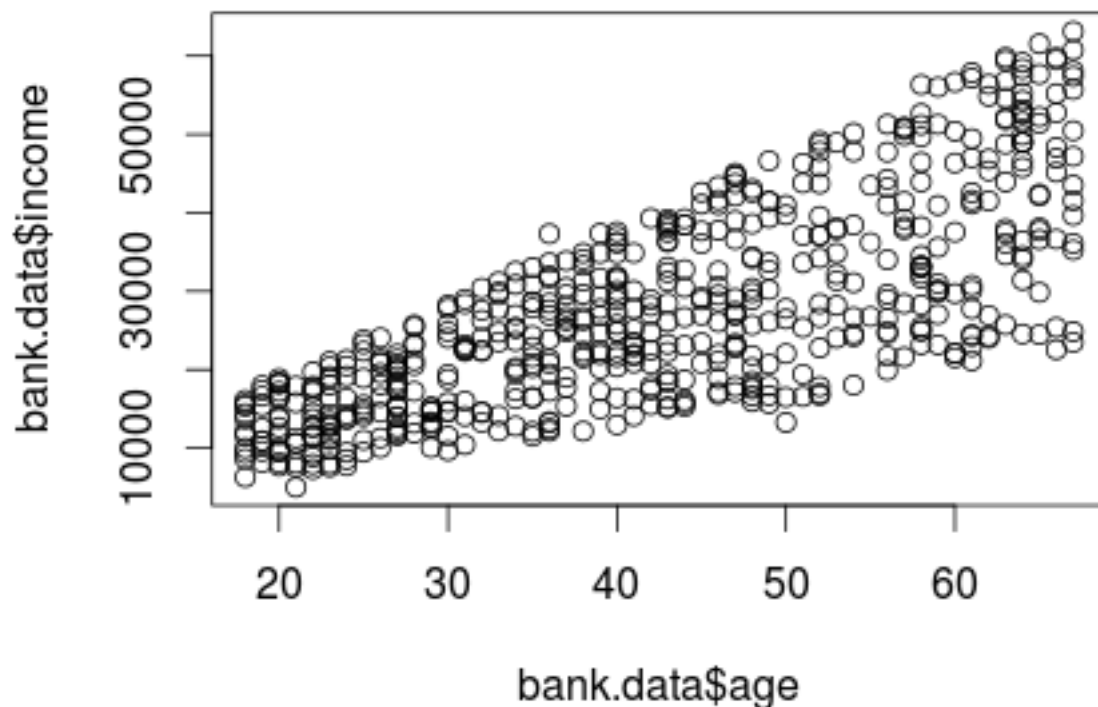


Scatter plot between age and income done using R :

Commands used :

```
> View(bank.data)
> plot(bank.data$age)
> plot(bank.data$age, bank.data$income)
```



1. What conclusion, if any, can be drawn from the values obtained in task 4 above?

Essentially correlation is a normalized representation of covariance so that the value of the coefficient stays between -1 to 1. Here the correlation coefficient of 0.75 means that age and income have a high positive correlation (as age grows, income grows)

2. Suppose the income were measured in thousands instead of the actual value (for example, and income value of 17,456 now becomes 17.456), how would the results of task 4 above change (if at all)? Explain.

If income is in thousands, the correlation coefficient will still remain the same i.e. 0.75 whereas covariance will come down drastically. Essentially, this shows why correlation is a better measure. As the mean1 is very high, covariance comes down drastically.

Covariance = (sums of product of elements in arrays/num of instances) – (mean1*mean2)