1.sd and variance:-

avgspeed=c(78,81,82,74,83,82,77)

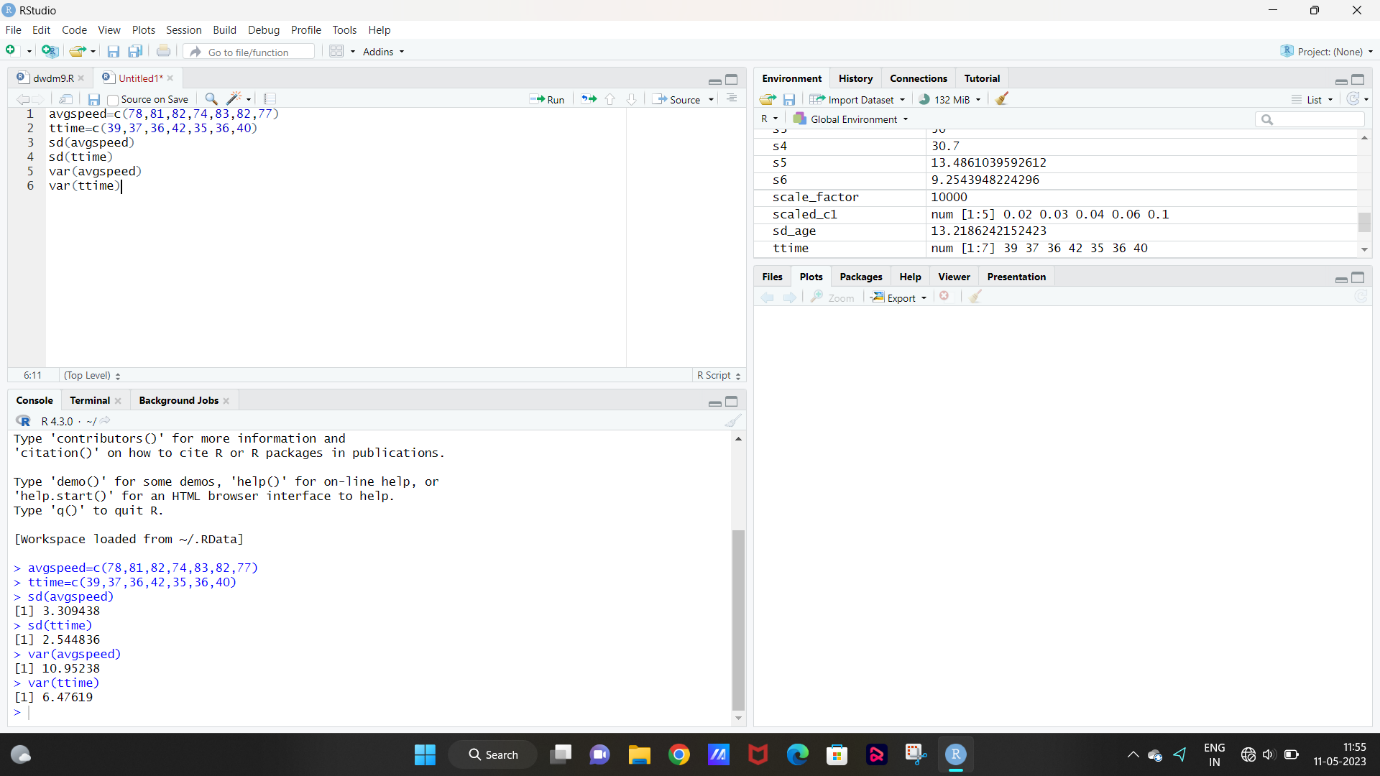
ttime=c(39,37,36,42,35,36,40)

sd(avgspeed)

sd(ttime)

var(avgspeed)

var(ttime)



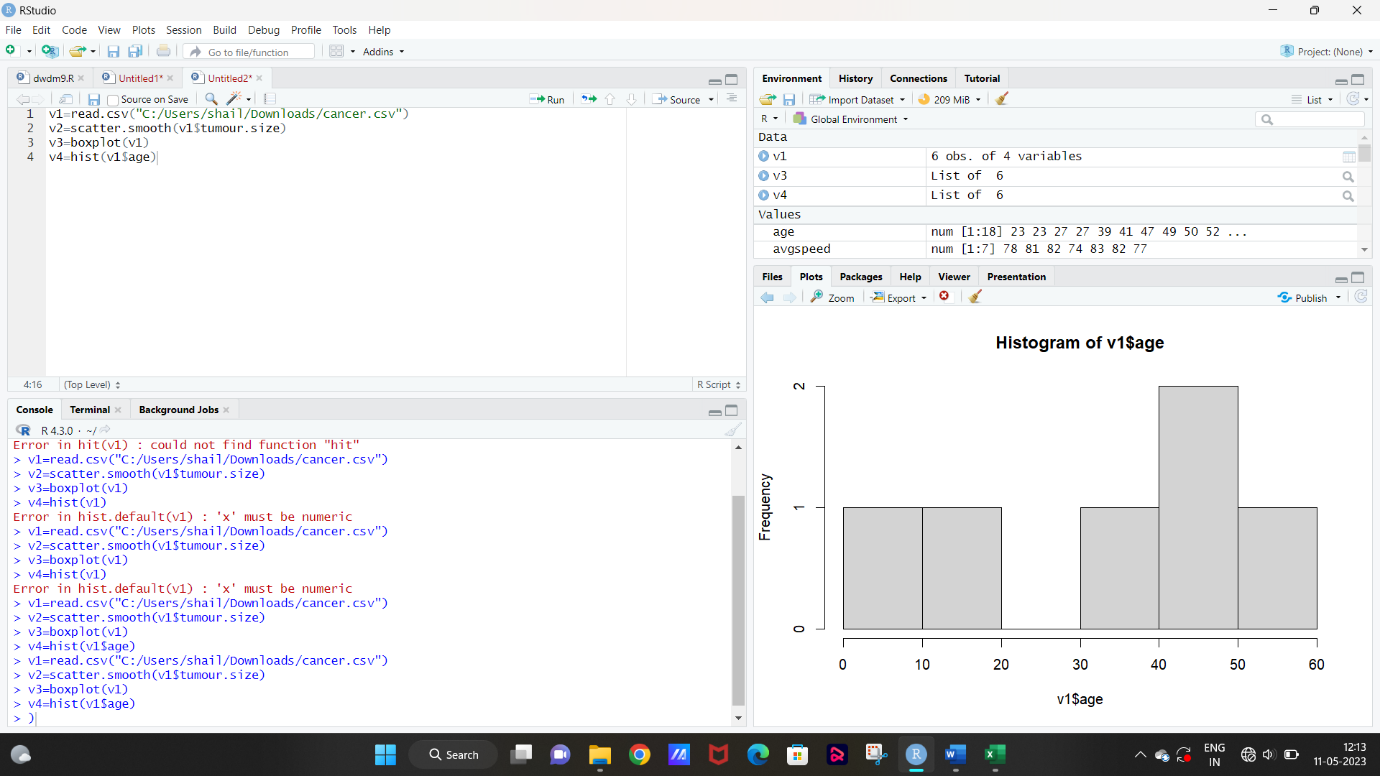
2.scatter:-

v1=read.csv("C:/Users/shail/Downloads/cancer.csv")

v2=scatter.smooth(v1$tumour.size)

v3=boxplot(v1)

v4=hist(v1$age)



3.

true\_apples <- 9

true\_strawberries <- 10

correct\_apples <- 6

correct\_strawberries <- 8

misclassified\_apples <- 3

misclassified\_strawberries <- 2

total\_identified <- correct\_apples + correct\_strawberries + misclassified\_apples + misclassified\_strawberries

accuracy\_apples <- correct\_apples / true\_apples

accuracy\_strawberries <- correct\_strawberries / true\_strawberries

precision\_apples <- correct\_apples / (correct\_apples + misclassified\_strawberries)

precision\_strawberries <- correct\_strawberries / (correct\_strawberries + misclassified\_apples)

recall\_apples <- correct\_apples / true\_apples

recall\_strawberries <- correct\_strawberries / true\_strawberries

cat("total identified fruits:", total\_identified, "\n")

cat("accuracy for apples:", round(accuracy\_apples, 2), "\n")

cat("accuracy for strawberries:", round(accuracy\_strawberries, 2), "\n")

cat("precision for apples:", round(precision\_apples, 2), "\n")

cat("precision for strawberries:", round(precision\_strawberries, 2), "\n")

cat("recall for apples:", round(recall\_apples, 2), "\n")

cat("recall for strawberries:", round(recall\_strawberries, 2), "\n")

