

2e.

The Scratch script consists of the following blocks:

- when BackButton .Click**:
 - do [open another screen v. screenName "Screen1"]
 - initialize glob Strikeouts to 0
 - initialize glob Doubles to 0
 - initialize glob BallInPlayOuts to 0
 - initialize glob Homeruns to 0
 - initialize glob Singles to 0
 - initialize glob Triples to 0
 - initialize glob bases to 0
 - initialize glob Hits to 0
 - initialize glob At_Bats to 0
 - initialize glob SluggingAverage to 0
 - initialize glob BattingAverage to 0
 - initialize glob Walks to 0
- to CalcSlugAvg**:
 - do [if > v. 0 then set SluggingAverage to (bases / At_Bats)]
 - set ActualSluggingAverage .Text to SluggingAverage
 - call [TinyDB1 .StoreValue] tag SluggingAverage valueToStore SluggingAverage
- to CalcBatAvg**:
 - do [if > v. 0 then set BattingAverage to (Hits / At_Bats)]
 - set ActualBattingAverage .Text to BattingAverage
 - call [TinyDB1 .StoreValue] tag BattingAverage valueToStore BattingAverage
- when BattingResult .BeforePicking**:
 - do [set BattingResult .Elements to [make a list [Hits][Walks][Strikeouts][Ball-In-Play Out]]]
- when BaseReached .BeforePicking**:
 - do [set BaseReached .Elements to [make a list [1B][2B][3B][HR]]]

```
to Reset
do
set global At_Bats to 0
set ActualBattingAverage . Text to "0.000"
set global BallInPlayOuts to 0
set ActualBallInPlayOuts . Text to get global BallInPlayOuts
set global Doubles to 0
set ActualDoubles . Text to get global Doubles
set global Hits to 0
set ActualHits . Text to get global Hits
set global Homeruns to 0
set ActualHomeRuns . Text to get global Homeruns
set global Singles to 0
set ActualSingles . Text to get global Singles
set global Strikeouts to 0
set ActualStrikeouts . Text to get global Strikeouts
set global Triples to 0
set ActualTriples . Text to get global Triples
set global Walks to 0
set ActualWalks . Text to get global Walks
set global SluggingAverage to 0
set ActualSluggingAverage . Text to "0.000"
set global bases to 0
call TinyDB1 .ClearTag
tag "Strikeouts"
call TinyDB1 .ClearTag
tag "Singles"
call TinyDB1 .ClearTag
tag "Doubles"
call TinyDB1 .ClearTag
tag "Homeruns"
call TinyDB1 .ClearTag
tag "Triples"
call TinyDB1 .ClearTag
tag "AtBats"
call TinyDB1 .ClearTag
tag "Walks"
call TinyDB1 .ClearTag
tag "Hits"
call TinyDB1 .ClearTag
tag "BallInPlayOuts"
call TinyDB1 .ClearTag
tag "BattingAverage"
call TinyDB1 .ClearTag
tag "SluggingAverage"
```

```

when BattingStatistics .Initialize
do
  set global At_Bats to call TinyDB1 .GetValue
    tag "AtBats"
    valueIfTagNotThere 0
  set global Hits to call TinyDB1 .GetValue
    tag "Hits"
    valueIfTagNotThere 0
  set ActualHits . Text to get global Hits
  set global Walks to call TinyDB1 .GetValue
    tag "Walks"
    valueIfTagNotThere 0
  set ActualWalks . Text to get global Walks
  set global Strikeouts to call TinyDB1 .GetValue
    tag "Strikeouts"
    valueIfTagNotThere 0
  set ActualStrikeouts . Text to get global Strikeouts
  set global BallInPlayOuts to call TinyDB1 .GetValue
    tag "BallInPlayOuts"
    valueIfTagNotThere 0
  set ActualBallInPlayOuts . Text to get global BallInPlayOuts
  set global Singles to call TinyDB1 .GetValue
    tag "Singles"
    valueIfTagNotThere 0
  set ActualSingles . Text to get global Singles
  set global Doubles to call TinyDB1 .GetValue
    tag "Doubles"
    valueIfTagNotThere 0
  set ActualDoubles . Text to get global Doubles
  set global Triples to call TinyDB1 .GetValue
    tag "Triples"
    valueIfTagNotThere 0
  set ActualTriples . Text to get global Triples
  set global Homeruns to call TinyDB1 .GetValue
    tag "Homeruns"
    valueIfTagNotThere 0
  set ActualHomeRuns . Text to get global Homeruns
  set global BattingAverage to call TinyDB1 .GetValue
    tag "BattingAverage"
    valueIfTagNotThere 0
  set ActualBattingAverage . Text to get global BattingAverage
  if get global BattingAverage = 0
  then set ActualBattingAverage . Text to "0.000"
  set global SluggingAverage to call TinyDB1 .GetValue
    tag "SluggingAverage"
    valueIfTagNotThere 0
  set ActualSluggingAverage . Text to get global SluggingAverage
  if get global SluggingAverage = 0
  then set ActualSluggingAverage . Text to "0.000"

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when BattingResult .AfterPicking
do if [BattingResult . Selection = "Hits"]
then set global Hits to [get global Hits + 1]
set global At_Bats to [get global At_Bats + 1]
else if [BattingResult . Selection = "Ball-In-Play Outs"]
then set global BallInPlayOuts to [get global BallInPlayOuts + 1]
set global At_Bats to [get global At_Bats + 1]
else if [BattingResult . Selection = "Walks"]
then set global Walks to [get global Walks + 1]
else if [BattingResult . Selection = "Strikeouts"]
then set global Strikeouts to [get global Strikeouts + 1]
set global At_Bats to [get global At_Bats + 1]

call CalcBatAvg
set ActualHits . Text to [get global Hits]
set ActualWalks . Text to [get global Walks]
set ActualStrikeouts . Text to [get global Strikeouts]
set ActualBallInPlayOuts . Text to [get global BallInPlayOuts]

call TinyDB1 .StoreValue
tag "AtBats"
valueToStore [get global At_Bats]
call TinyDB1 .StoreValue
tag "Hits"
valueToStore [get global Hits]
call TinyDB1 .StoreValue
tag "Walks"
valueToStore [get global Walks]
call TinyDB1 .StoreValue
tag "Strikeouts"
valueToStore [get global Strikeouts]
call TinyDB1 .StoreValue
tag "BallInPlayOuts"
valueToStore [get global BallInPlayOuts]

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when BaseReached . AfterPicking
do if [BaseReached . Selection = "1B"]
then set global Singles to [get global Singles + 1]
else if [BaseReached . Selection = "2B"]
then set global Doubles to [get global Doubles + 1]
else if [BaseReached . Selection = "3B"]
then set global Triples to [get global Triples + 1]
else if [BaseReached . Selection = "HR"]
then set global Homeruns to [get global Homeruns + 1]

set global bases to [get global Singles + [get global Doubles * 2] + [get global Triples * 3] + [get global Homeruns * 4]]

call CalcSlugAvg
set ActualSingles . Text to [get global Singles]
set ActualDoubles . Text to [get global Doubles]
set ActualTriples . Text to [get global Triples]
set ActualHomeRuns . Text to [get global Homeruns]

call TinyDB1 .StoreValue
tag "Singles"
valueToStore [get global Singles]
call TinyDB1 .StoreValue
tag "Doubles"
valueToStore [get global Doubles]
call TinyDB1 .StoreValue
tag "Triples"
valueToStore [get global Triples]
call TinyDB1 .StoreValue
tag "Homeruns"
valueToStore [get global Homeruns]

when ResetButton . Click
do call Reset

```

Script 1 (Left):

```

when BackButton .Click
do [open another screen screenName "Screen1"]

initialize glob FieldingPercentage to 0
initialize glob Assists to 0
initialize glob Errors to 0
initialize glob Putouts to 0
initialize glob Chances to 0

when FieldingResult .BeforePicking
do [set FieldingResult . Elements to [make a list [Errors] [Putouts] [Assists]]]

when ResetButton .Click
do [call Reset]

```

Script 2 (Right):

```

to Reset
do [set global Assists to 0
set global Chances to 0
set global Errors to 0
set global Putouts to 0
set ActualFieldingPercentage . Text to "0.000"
set ActualChances . Text to "0"
set ActualAssists . Text to "0"
set ActualPutouts . Text to "0"
set ActualErrors . Text to "0"
call TinyDB1 .ClearTag tag "Assists"
call TinyDB1 .ClearTag tag "Chances"
call TinyDB1 .ClearTag tag "Errors"
call TinyDB1 .ClearTag tag "Putouts"]

```

Script 3 (Bottom):

```

when DefensiveStatistics .Initialize
do [set global Assists to [call TinyDB1 .GetValue tag "Assists" valueIfTagNotThere 0]
set ActualAssists . Text to [get global Assists]
set global Chances to [call TinyDB1 .GetValue tag "Chances" valueIfTagNotThere 0]
set ActualChances . Text to [get global Chances]
set global Errors to [call TinyDB1 .GetValue tag "Errors" valueIfTagNotThere 0]
set ActualErrors . Text to [get global Errors]
set global Putouts to [call TinyDB1 .GetValue tag "Putouts" valueIfTagNotThere 0]
set ActualPutouts . Text to [get global Putouts]
set global FieldingPercentage to [call TinyDB1 .GetValue tag "FieldingPercentage" valueIfTagNotThere 0]
set ActualFieldingPercentage . Text to [get global FieldingPercentage]
if [get global FieldingPercentage = 0]
then [set ActualFieldingPercentage . Text to "0.000"]

```

```

when FieldingResult .AfterPicking
do
  if FieldingResult . Selection = "Errors"
    then set [global Errors v] to (get [global Errors v] + (1))
      set [ActualErrors v].Text to (get [global Errors v])
    else if FieldingResult . Selection = "Putouts"
      then set [global Putouts v] to (get [global Putouts v] + (1))
        set [ActualPutouts v].Text to (get [global Putouts v])
      else if FieldingResult . Selection = "Assists"
        then set [global Assists v] to (get [global Assists v] + (1))
          set [ActualAssists v].Text to (get [global Assists v])
        set [global Chances v] to (get [global Chances v] + (1))
        set [global FieldingPercentage v] to ((get [global Chances v] - get [global Errors v]) / get [global Chances v])
        set [ActualFieldingPercentage v].Text to (get [global FieldingPercentage v])
        set [ActualChances v].Text to (get [global Chances v])
        call [TinyDB1 v].StoreValue
          tag ["FieldingPercentage"]
          valueToStore (get [global FieldingPercentage v])
        call [TinyDB1 v].StoreValue
          tag ["Assists"]
          valueToStore (get [global Assists v])
        call [TinyDB1 v].StoreValue
          tag ["Chances"]
          valueToStore (get [global Chances v])
        call [TinyDB1 v].StoreValue
          tag ["Errors"]
          valueToStore (get [global Errors v])
        call [TinyDB1 v].StoreValue
          tag ["Putouts"]
          valueToStore (get [global Putouts v])

```

```

when BackButton .Click
do
  open another screen screenName ["Screen1"]
  initialize global [Ks v] to (0)
  initialize global [LetHits v] to (0)
  initialize global [BBs v] to (0)
  initialize global [InningsPitched v] to (0)
  initialize global [EarnedRuns v] to (0)
  initialize global [Balls v] to (0)
  initialize global [ERA v] to (0)
  initialize global [BattersFaced v] to (0)
  initialize global [Strikes v] to (0)
  initialize global [KtoBB v] to (0)
  initialize global [Pitches v] to (0)

when PitchingResult .BeforePicking
do
  set [PitchingResult v].Elements to (make a list ["Strikes", "Strikeouts", "Balls", "Base on Balls", "Hits", "Earned Runs"])

to [CalcKtoBB]
do
  if (get [global BBs v] > 0)
  then set [global KtoBB v] to (get [global Ks v] / get [global BBs v])
    set [ActualKtoBB v].Text to (get [global KtoBB v])
    call [TinyDB1 v].StoreValue
      tag ["KtoBB"]
      valueToStore (get [global KtoBB v])
end

to [CalcERA]
do
  if (get [global InningsPitched v] > 0)
  then set [global ERA v] to ((get [global EarnedRuns v] * (9)) / get [global InningsPitched v])
    set [ActualERA v].Text to (get [global ERA v])
    call [TinyDB1 v].StoreValue
      tag ["ERA"]
      valueToStore (get [global ERA v])
end

```

```

when [PitchingStatistics] .Initialize
do
    set [global BBs] to [0]
    set [global Balls] to [0]
    set [global BattersFaced] to [0]
    set [global ERA] to [0]
    set [global EarnedRuns] to [0]
    set [global InningsPitched] to [0]
    set [global KtoBB] to [0]
    set [global Ks] to [0]
    set [global Pitches] to [0]
    set [global LetHits] to [0]
    set [global Strikes] to [0]

    set [ActualPitch] .Text to [0]
    set [ActualStrikes] .Text to [0]
    set [ActualStrikeouts] .Text to [0]
    set [ActualBalls] .Text to [0]
    set [ActualBaseOnBalls] .Text to [0]
    set [ActualHits] .Text to [0]
    set [ActualKtoBB] .Text to [0.000]
    set [ActualRuns] .Text to [0]
    set [ActualERA] .Text to [0.00]
    set [ActualInningsPitched] .Text to [0]
    set [ActualBattersFaced] .Text to [0]

    call [TinyDB1] .ClearAll
    call [TinyDB1] .ClearTag
        tag ["BattersFaced"]
    call [TinyDB1] .ClearTag
        tag ["InningsPitched"]
    call [TinyDB1] .ClearTag
        tag ["Balls"]
    call [TinyDB1] .ClearTag
        tag ["EarnedRuns"]
    call [TinyDB1] .ClearTag
        tag ["LetHits"]
    call [TinyDB1] .ClearTag
        tag ["Ks"]
    call [TinyDB1] .ClearTag
        tag ["BBs"]
    call [TinyDB1] .ClearTag
        tag ["ERA"]
    call [TinyDB1] .ClearTag
        tag ["KtoBB"]
    call [TinyDB1] .ClearTag
        tag ["Strikes"]
    call [TinyDB1] .ClearTag
        tag ["Pitches"]

    do
        set [global Pitches] to [call [TinyDB1] .GetValue
            tag ["Pitches"]
            valueIfTagNotThere [0]]
        set [ActualPitch] .Text to [get [global Pitches]]
        set [global Strikes] to [call [TinyDB1] .GetValue
            tag ["Strikes"]
            valueIfTagNotThere [0]]
        set [ActualStrikes] .Text to [get [global Strikes]]
        set [global Balls] to [call [TinyDB1] .GetValue
            tag ["Balls"]
            valueIfTagNotThere [0]]
        set [ActualBalls] .Text to [get [global Balls]]
        set [global Ks] to [call [TinyDB1] .GetValue
            tag ["Ks"]
            valueIfTagNotThere [0]]
        set [ActualStrikeouts] .Text to [get [global Ks]]
        set [global BBs] to [call [TinyDB1] .GetValue
            tag ["BBs"]
            valueIfTagNotThere [0]]
        set [ActualBaseOnBalls] .Text to [get [global BBs]]
        set [global LetHits] to [call [TinyDB1] .GetValue
            tag ["LetHits"]
            valueIfTagNotThere [0]]
        set [ActualHits] .Text to [get [global LetHits]]
        set [global InningsPitched] to [call [TinyDB1] .GetValue
            tag ["InningsPitched"]
            valueIfTagNotThere [0]]
        set [ActualInningsPitched] .Text to [get [global InningsPitched]]
        set [global EarnedRuns] to [call [TinyDB1] .GetValue
            tag ["EarnedRuns"]
            valueIfTagNotThere [0]]
        set [ActualRuns] .Text to [get [global EarnedRuns]]
        set [global BattersFaced] to [call [TinyDB1] .GetValue
            tag ["BattersFaced"]
            valueIfTagNotThere [0]]
        set [ActualBattersFaced] .Text to [get [global BattersFaced]]
        set [global ERA] to [call [TinyDB1] .GetValue
            tag ["ERA"]
            valueIfTagNotThere [0]]
        set [ActualERA] .Text to [get [global ERA]]
        set [global KtoBB] to [call [TinyDB1] .GetValue
            tag ["KtoBB"]
            valueIfTagNotThere [0]]
        set [ActualKtoBB] .Text to [get [global KtoBB]]

```

```

when [AddInningButton] .Click
do
    set [global InningsPitched] to [get [global InningsPitched] + [1]]
    set [ActualInningsPitched] .Text to [get [global InningsPitched]]
    call [TinyDB1] .StoreValue
        tag ["EarnedRuns"]
        trueToStore [get [global EarnedRuns]]
    call [CalcERA]

```

```

when [AddPitchButton] .Click
do
    set [global Pitches] to [get [global Pitches] + [1]]
    set [ActualPitch] .Text to [get [global Pitches]]

```

```

when [PitchingResult v].AfterPicking
do
  if [PitchingResult v].Selection = "Balls"
    then set [global Balls v] to [get [global Balls v] + 1]
        set [ActualBalls v].Text to [get [global Balls v]]
        call [TinyDB1 v].StoreValue
          tag "Balls"
          valueToStore [get [global Balls v]]
  if [PitchingResult v].Selection = "Strikes"
    then set [global Strikes v] to [get [global Strikes v] + 1]
        set [ActualStrikes v].Text to [get [global Strikes v]]
        call [TinyDB1 v].StoreValue
          tag "Strikes"
          valueToStore [get [global Strikes v]]
  if [PitchingResult v].Selection = "Strikeouts"
    then set [global Ks v] to [get [global Ks v] + 1]
        set [ActualKs v].Text to [get [global Ks v]]
        call [CalcKtoBB v]
          tag "Ks"
          valueToStore [get [global Strikes v]]
  if [PitchingResult v].Selection = "Base on Balls"
    then set [global BBs v] to [get [global BBs v] + 1]
        set [ActualBaseOnBalls v].Text to [get [global BBs v]]
        call [TinyDB1 v].StoreValue
          tag "BBs"
          valueToStore [get [global BBs v]]
        call [CalcKtoBB v]
  if [PitchingResult v].Selection = "Hits"
    then set [global LetHits v] to [get [global LetHits v] + 1]
        set [ActualHits v].Text to [get [global LetHits v]]
        call [TinyDB1 v].StoreValue
          tag "LetHits"
          valueToStore [get [global LetHits v]]
  if [PitchingResult v].Selection = "Earned Runs"
    then set [global EarnedRuns v] to [get [global EarnedRuns v] + 1]
        set [ActualEarnedRuns v].Text to [get [global EarnedRuns v]]
        call [CalcERA v]
          tag "EarnedRuns"
          valueToStore [get [global EarnedRuns v]]

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```

when [ResetButton v].Click
do
  call [Reset v]

when [AddBatterButton v].Click
do
  set [global BattersFaced v] to [get [global BattersFaced v] + 1]
  set [ActualBattersFaced v].Text to [get [global BattersFaced v]]
  call [TinyDB1 v].StoreValue
    tag "BattersFaced"
    valueToStore [get [global BattersFaced v]]

```