merge\_results.R

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Merges the results from step\_sensitivities\_samples, step\_sensitivities\_loci, step\_sensitivities\_pops into a single table - merged\_results

@title merge\_results @param step\_sensitivities\_samples @param step\_sensitivities\_loci @param step\_sensitivities\_pops @return merged\_results

merge\_results <- function(step\_sensitivities\_samples,  
 step\_sensitivities\_loci,  
 step\_sensitivities\_pops) {  
  
 #Convert to long format  
 data\_samples\_long <- step\_sensitivities\_samples %>%  
 #Take columns with "correct" and make new columns: Measure, Correct.Steps  
 pivot\_longer(contains("\_correct"),   
 names\_to = "Measure.Correct", values\_to = "Correct.Steps") %>%  
 #Take columns with "coefvar" and make new columns: Measure, coefvar  
 pivot\_longer(contains("\_coefvar"),   
 names\_to = "Measure.coefvar", values\_to = "coefvar") %>%  
 #Take columns with "correct" and make new columns: Measure, Correct.Steps  
 pivot\_longer(-c(step:n\_reps, Measure.Correct, Correct.Steps, Measure.coefvar, coefvar),   
 names\_to = "Measure.Total", values\_to = "Total.Steps") %>%  
 #Remove "\_correct" from Measure.Correct column  
 mutate(Measure.Correct = sub("\_correct", "", Measure.Correct)) %>%  
 #Remove "\_coefvar" from Measure.coefvar column  
 mutate(Measure.coefvar = sub("\_coefvar", "", Measure.coefvar)) %>%  
 #just keep rows with matching Measures  
 filter(Measure.Correct == Measure.Total) %>%  
 #just keep rows with matching Measures  
 filter(Measure.Correct == Measure.coefvar) %>%  
 #Rename measure column  
 rename(Measure = Measure.Correct) %>%  
 #Select specific columns for output  
 select(c(Measure, step, p.start, p.end, n.samples,   
 n.loci, n.pops, Total.Steps, Correct.Steps, coefvar))  
   
   
 data\_loci\_long <- step\_sensitivities\_loci %>%  
 #Take columns with "correct" and make new columns: Measure, Correct.Steps  
 pivot\_longer(contains("\_correct"),   
 names\_to = "Measure.Correct", values\_to = "Correct.Steps") %>%  
 #Take columns with "coefvar" and make new columns: Measure, coefvar  
 pivot\_longer(contains("\_coefvar"),   
 names\_to = "Measure.coefvar", values\_to = "coefvar") %>%  
 #Take columns with "correct" and make new columns: Measure, Correct.Steps  
 pivot\_longer(-c(step:n\_reps, Measure.Correct, Correct.Steps, Measure.coefvar, coefvar),   
 names\_to = "Measure.Total", values\_to = "Total.Steps") %>%  
 #Remove "\_correct" from Measure.Correct column  
 mutate(Measure.Correct = sub("\_correct", "", Measure.Correct)) %>%  
 #Remove "\_coefvar" from Measure.coefvar column  
 mutate(Measure.coefvar = sub("\_coefvar", "", Measure.coefvar)) %>%  
 #just keep rows with matching Measures  
 filter(Measure.Correct == Measure.Total) %>%  
 #just keep rows with matching Measures  
 filter(Measure.Correct == Measure.coefvar) %>%  
 #Rename measure column  
 rename(Measure = Measure.Correct) %>%  
 #Select specific columns for output  
 select(c(Measure, step, p.start, p.end, n.samples,   
 n.loci, n.pops, Total.Steps, Correct.Steps, coefvar))  
   
 data\_pops\_long <- step\_sensitivities\_pops %>%  
 #Take columns with "correct" and make new columns: Measure, Correct.Steps  
 pivot\_longer(contains("\_correct"),   
 names\_to = "Measure.Correct", values\_to = "Correct.Steps") %>%  
 #Take columns with "coefvar" and make new columns: Measure, coefvar  
 pivot\_longer(contains("\_coefvar"),   
 names\_to = "Measure.coefvar", values\_to = "coefvar") %>%  
 #Take columns with "correct" and make new columns: Measure, Correct.Steps  
 pivot\_longer(-c(step:n\_reps, Measure.Correct, Correct.Steps, Measure.coefvar, coefvar),   
 names\_to = "Measure.Total", values\_to = "Total.Steps") %>%  
 #Remove "\_correct" from Measure.Correct column  
 mutate(Measure.Correct = sub("\_correct", "", Measure.Correct)) %>%  
 #Remove "\_coefvar" from Measure.coefvar column  
 mutate(Measure.coefvar = sub("\_coefvar", "", Measure.coefvar)) %>%  
 #just keep rows with matching Measures  
 filter(Measure.Correct == Measure.Total) %>%  
 #just keep rows with matching Measures  
 filter(Measure.Correct == Measure.coefvar) %>%  
 #Rename measure column  
 rename(Measure = Measure.Correct) %>%  
 #Select specific columns for output  
 select(c(Measure, step, p.start, p.end, n.samples,   
 n.loci, n.pops, Total.Steps, Correct.Steps, coefvar))  
  
   
 #Merge all data together  
 data <- data\_samples\_long %>%  
 full\_join(data\_loci\_long) %>%  
 full\_join(data\_pops\_long) %>%  
 distinct(across(Measure:n.pops), .keep\_all = T)  
   
 #Add in incorrect steps column  
 merged\_results <- data %>%  
 mutate(Incorrect.Steps = Total.Steps - Correct.Steps)  
   
 saveRDS(merged\_results, "Outputs/merged\_results")  
   
 return(merged\_results)  
}