

CHEATSHEET: : from Pandas to base R to Tidyverse

	Pandas	Base R	Tidyverse
Extract variables	<code>iris[["Species", "Petal.Width"]]</code>	<code>select(iris, Species, Petal.Width)</code>	<code>iris[, c("Species", "Petal.Width")]</code>
Make new variables	<code>Iris['Petal.Ratio'] =iris['Petal.Length']/iris['Petal.Width']</code>	<code>iris\$Petal.Ratio <- iris\$Petal.Length/iris\$Petal.Width</code>	<code>mutate(iris, Petal.Ratio = Petal.Length/Petal.Width)</code>
Extract observations	<code>iris[iris['Petal.Width']>0.5][iris['Species']=='setosa']</code>	<code>iris[iris\$Petal.Width > 0.5 & iris\$Species == "setosa",]</code>	<code>filter(iris, Petal.Width > 0.5 & Species == "setosa")</code>
Arrange observations	<code>iris.sort_values(by = ['Species', 'Petal.Width'])</code>	<code>iris[order(iris\$Species, iris\$Petal.Width) ,]</code>	<code>arrange(iris, Species, Petal.Width)</code>
Summarize observations	<code>iris[['Petal.Length', 'Sepal.Length']].describe()</code>	<code>data.frame(Petal.Length.mean = mean(iris\$Petal.Length), Petal.Length.sd = sd(iris\$Petal.Length), Sepal.Length.mean = mean(iris\$Sepal.Length), Sepal.Length.sd = sd(iris\$Sepal.Length))</code>	<code>summarise_at(iris, .vars = c("Petal.Length", "Sepal.Length"), .funs = c("mean", "sd"))</code>
Reshaping data into longer form	<code>pd.melt(iris, id_vars='id', value_vars=['Sepal.Length', 'Sepal.Width', 'Petal.Length', 'Petal.Width'])</code>	<code>reshape(iris, varying = c("Sepal.Length", "Sepal.Width", "Petal.Length", "Petal.Width"), timevar = "trait", idvar = "id", v.names = "measurement", direction = "long")</code>	<code>gather(iris, key = "trait", value = "measurement", Sepal.Length:Petal.Width)</code>
Reshaping data into wider form	<code>Indometh.pivot(index='Subject', columns='time', values='conc')</code>	<code>reshape(Indometh, v.names = "conc", idvar = "Subject", timevar = "time", direction = "wide")</code>	<code>spread(Indometh, key = "time", value = "conc")</code>
Combine tables	<code>band_members.merge(band_instruments2, left_on='name', right_on='artist')</code>	<code>merge(band_members, band_instruments2, by.x = "name", by.y = "artist")</code>	<code>inner_join(band_members, band_instruments2, by = c("name" = "artist"))</code>