Synthetic\_leiden.qmd file shows how to synthesize leiden dataset. Synthesized dataset is saved in syntheticData\_2.Rdata and is used in main vignette SenstivityAnalysis.qmd.

Other than changing dataset, mammalsleep dataset in senstivity analysis is also changed and changes are mentioned below.

```{r eval=FALSE}

lm(sws ~ log10(bw) + odi)

```

Code was giving error that these variables are not found

Changed to

```{r eval=FALSE}

lm(sws ~ log10(bw) + odi, data = mammalsleep)

```

```{r}

delta <- c(8, 6, 4, 2, 0, -2, -4, -6, -8)

ini <- mice(mammalsleep[, -1], maxit=0, print=F)

meth<- ini$meth

meth["ts"]<- "~ I(sws + ps)"

pred <- ini$pred

pred[c("sws", "ps"), "ts"] <- 0

post <- ini$post

imp.all.undamped <- vector("list", length(delta))

for (i in 1:length(delta)) {

d <- delta[i]

cmd <- paste("imp[[j]][, i] <- imp[[j]][, i] +", d)

post["sws"] <- cmd

imp <- mice(mammalsleep[, -1], meth=meth, pred=pred, post = post, maxit = 10, seed = i \* 22, print=FALSE)

imp.all.undamped[[i]] <- imp

}

output <- sapply(imp.all.undamped, function(x) pool(with(x, lm(sws ~ log10(bw) + odi)))$qbar)

cbind(delta, as.data.frame(t(output)))

```

Code produced final output dataset with all NULL values because there is no qbar output in pooled object. I replaced it with pooled$ubar. I Also assigned rownames. Changed code is pasted below.

```{r}

delta <- c(8, 6, 4, 2, 0, -2, -4, -6, -8)

ini <- mice(mammalsleep[, -1], maxit=0, print=F)

meth<- ini$meth

meth["ts"]<- "~ I(sws + ps)"

pred <- ini$pred

pred[c("sws", "ps"), "ts"] <- 0

post <- ini$post

imp.all.undamped <- vector("list", length(delta))

for (i in 1:length(delta)) {

d <- delta[i]

cmd <- paste("imp[[j]][, i] <- imp[[j]][, i] +", d)

post["sws"] <- cmd

imp <- mice(mammalsleep[, -1], meth=meth, pred=pred, post = post, maxit = 10, seed = i \* 22, print=FALSE)

imp.all.undamped[[i]] <- imp

}

output <- sapply(imp.all.undamped, function(x) pool(with(x, lm(sws ~ log10(bw) + odi)))$pooled$ubar)

rownames(output) <- summary(pool(with(imp.all.undamped[[1]], lm(sws ~ log10(bw) + odi))))$term

cbind(delta, as.data.frame(t(output)))

```