

# EXPERIMENT NO. 5

## Code :

```
> library(recipes)
> library(dplyr)

> # Example dataset (imbalanced)
> data(iris)
> iris$Species <- as.factor(ifelse(iris$Species == "setosa", "minority", "majority"))
> table(iris$Species) # Check class distribution
```

*majority minority*

*100     50*

```
> # Apply SMOTE using themis
> rec <- recipe(Species ~ ., data = iris) %>%
+   step_smote(Species, over_ratio = 1) %>%
+   prep()

> data_balanced <- juice(rec)

> table(data_balanced$Species) # Check new class distribution
```

*majority minority*

*100     100*