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Aidan Dykstal, Edward Hammond, & Lilia James
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1 Introduction

In this project, we choose to focus on a dataset which includes information regarding people of the Pima Indian Tribe and their relationship to diabetes. The dataset contains 768 observations over 9 variables. The variables are as follow:

1. Number of times pregnant -
2. Plasma glucose concentration at two hours in oral glucose tolerance test
3. Diastolic blood pressure in mm/hg
4. Tricep skinfold thickness in mm
5. Two hour serum insulin concentration μ/ml
6. Body Mass Index kg/m^2
7. Diabetes pedigree function
8. Age in years
9. Diabetic status - This categorical variable

2 The Bayes Classifier Approach

2.1 Assumptions

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2.2 Model Construction Methods

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2.3 Application to the STUDY-GOES-HERE

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2.4 Model Limitations & Appropriateness

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3 The Logistic Regression Approach

3.1 Assumptions

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3.2 Model Construction Methods

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3.3 Application to the STUDY-GOES-HERE

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3.4 Model Limitations & Appropriateness

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4 The k -Nearest Neighbors Approach

4.1 Assumptions

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4.2 Model Construction Methods

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4.3 Application to the STUDY-GOES-HERE

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4.4 Model Limitations & Appropriateness

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5 Conclusions

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Appendix

In this appendix, we feature the R code used to generate the results and visualizations featured in this report. We will feature four primary sections for code: (1) data collection and cleaning, (2) STRATEGY-ONE model selection and analysis, (3) STRATEGY-TWO model selection and analysis, & (4) STRATEGY-THREE model selection and analysis.

Data Collection & Cleaning

SUMMARY. Comments in the code highlight specific tasks.

```
# Collect the Pima Indian Diabetes Data into a Dataframe  
BigChungus <- read.csv('Diabetes.csv', header = TRUE)
```

STRATEGY-ONE

SUMMARY. Again, comments in the code reveal specific tasks.

```
# Ca$h Money
```


STRATEGY-TWO

SUMMARY. Again, comments in the code reveal specific tasks.

```
# Ca$h Money
```

STRATEGY-THREE

SUMMARY. Again, comments in the code reveal specific tasks.

```
# Ca$h Money
```