|  |  |
| --- | --- |
| **Variable** | **Description** |
| id | Case number: 1 – 252 |
| body\_density | Density in grams per cubic centimetre (gm/cm^3) |
| age | Age in years |
| weight | Weight in pounds (lb) |
| height | Height in inches (in) |
| neck | Circumference of neck in centimetres (cm) |
| chest | Circumference of chest in centimetres (cm) |
| abdomen | Circumference of abdomen in centimetres (cm) [measured at “umbilicus; level with iliac crest”] |
| hip | Circumference of hip in centimetres (cm) |
| thigh | Circumference of thigh in centimetres (cm) |
| knee | Circumference of knee in centimetres (cm) |
| ankle | Circumference of ankle in centimetres (cm) |
| bicep | Circumference of extended bicep in centimetres (cm) |
| forearm | Circumference of forearm in centimetres (cm) |
| wrist | Circumference of wrist in centimetres (cm) [measured “distal to the styloid processes”] |

Table

Description automatically generated

Chart, histogram

Description automatically generated

A picture containing diagram

Description automatically generated

Chart, histogram

Description automatically generated

Chart

Description automatically generated

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | age | height | forearm | wrist | i\_weight | i\_neck | i\_chest | i\_abdomen | i\_hip | i\_thigh | i\_knee | i\_ankle | i\_bicep |
| 1 |  |  |  |  |  |  |  | \* |  |  |  |  |  |
| 2 |  |  |  | \* |  |  |  | \* |  |  |  |  |  |
| 3 |  | \* |  | \* |  |  |  | \* |  |  |  |  |  |
| 4 |  | \* |  | \* |  | \* |  | \* |  |  |  |  |  |
| 5 |  | \* |  | \* |  | \* |  | \* |  |  |  |  | \* |
| 6 | \* | \* |  | \* |  | \* |  | \* |  |  |  |  | \* |
| 7 | \* | \* |  | \* | \* | \* | \* | \* |  |  |  |  |  |
| 8 | \* | \* | \* | \* | \* | \* | \* | \* |  |  |  |  |  |

Table

Description automatically generated

Four pred / suggested (Lasso model)

Table

Description automatically generated

Based on models decided, diagnostic plots

RMSE Plot

**Appendix:**

Chart, histogram

Description automatically generated

Chart, histogram

Description automatically generated

Chart, histogram

Description automatically generated

Chart, histogram

Description automatically generated

Chart, histogram

Description automatically generated

Chart, histogram

Description automatically generated

Chart, histogram

Description automatically generated

Chart, histogram

Description automatically generated

INDIVIDUAL REGRESSION TABLES

Forward (Six Pred)

Table

Description automatically generated

Back and Step (Eight Pred)

Table

Description automatically generated

Automatic (eight pred)

