

# Logistic Code that does not work

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## **\*\*PROF. DUTT :**

I do not have a **Choice** variable so I cannot run these code. If I should create a **Choice** variable using the z-score pointers you gave me how would I do this?

```
# # Fit a logistic regression model to predict choice (0 = A, 1 = B) based on Hpa
# Hpa_model <- glm(Choice ~ pHa, data = choices_df, family = binomial())
# # Print the model summary
# summary(Hpa_model)

# # Fit a logistic regression model to predict choice (0 = A, 1 = B) based on Hpb
# Hpb_model <- glm(Choice ~ pHb, data = choices_df, family = binomial())
# # Print the model summary
# summary(Hpb_model)
```

## **Probability Density Plot:**

If you use logistic regression to assess the impact of various independent variables on the likelihood of choosing Gamble A or B, a probability density plot could be a useful visualization to display the distribution of predicted probabilities for each choice. This could help to illustrate any differences in the distribution of predicted probabilities between the two choices.

```
# Assuming you have a logistic regression model "logit_model" predicting the binary outcome
# # Extract the predicted probabilities for each choice
# probs <- predict(logit_model, type = "response")
#
# # Create a density plot for each choice
# ggplot(data.frame(probs = probs, choice = choice), aes(x = probs, fill = choice)) +
```

```
# geom_density(alpha = 0.5) +
# scale_fill_manual(values = c("#F8766D", "#00BFC4"), name = "Choice") +
# # xlab("Predicted probability") +
# # ylab("Density") +
# ggtitle("Distribution of predicted probabilities for each choice")
```

## **Heat Map:**

```
# Assuming you have a data frame "df" with two categorical variables "feedback" and "choice"
# Use the "table" function to create a contingency table of frequencies
# freq_table <- table(df$feedback, df$choice)
#
# # Create a heat map using the "ggplot2" package
# ggplot(data.frame(freq_table), aes(x = Var1, y = Var2, fill = Freq)) +
#   geom_tile() +
#   scale_fill_gradient(low = "#FFFFFF", high = "#0072B2") +
#   xlab("Feedback") +
#   ylab("Choice") +
#   ggtitle("Heat map of frequencies by feedback and choice")
```