Results

2025-08-06

```r
library(ggplot2)
library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

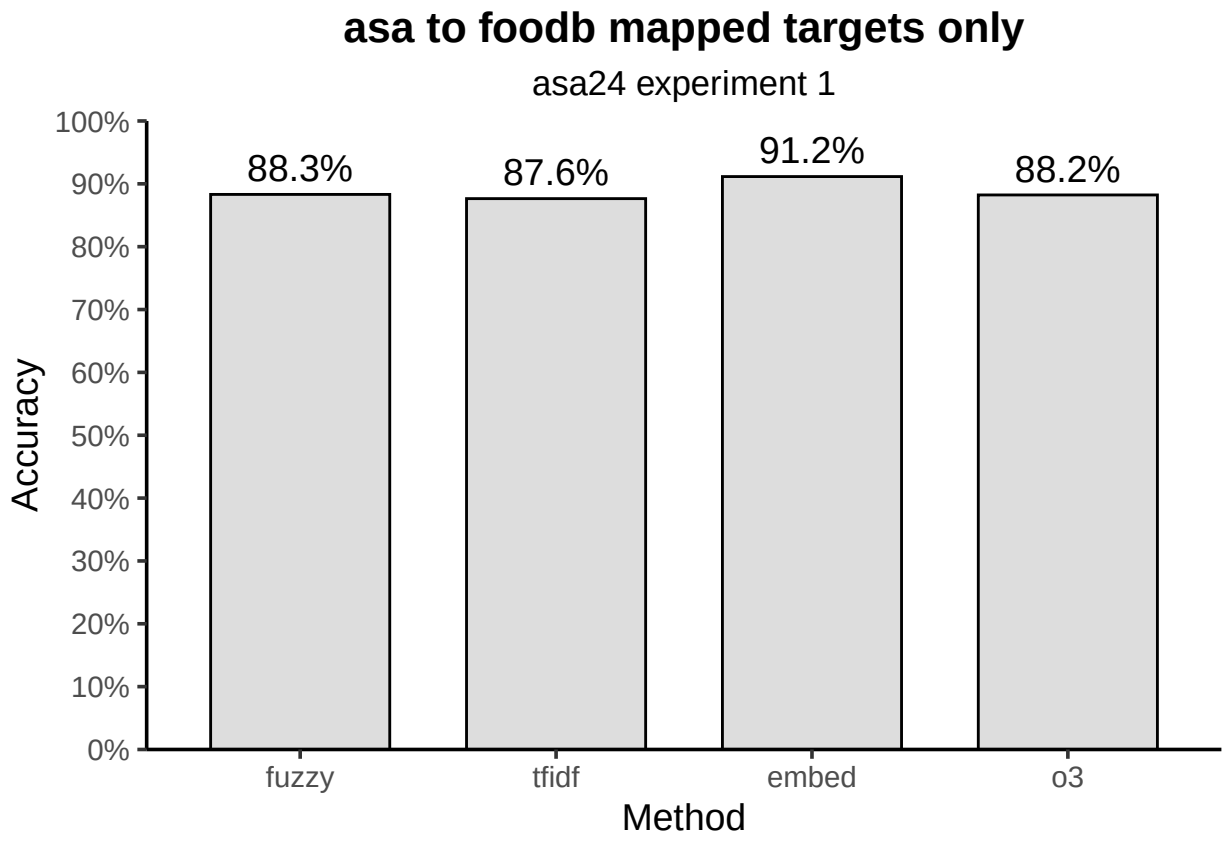
```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```r
library(scales)

plot_accuracy <- function(filename, title_text, subtitle_text) {
  # relative file path
  file_path <- file.path("..", "results", "accuracy_tables", filename)

  # load respective table
  accuracy_data <- read.csv(file_path)
  accuracy_data <- accuracy_data %>%
    mutate(method = factor(method, levels = unique(method)))

  # plot
  ggplot(accuracy_data, aes(x = method, y = accuracy * 100)) +
    geom_bar(stat = "identity", width = 0.7, fill = "#DDDDDD", color = "black") +
    geom_text(aes(label = sprintf("%.1f%%", accuracy * 100)),
              vjust = -0.5, size = 5) +
    scale_y_continuous(
      labels = percent_format(scale = 1),
      breaks = seq(0, 100, by = 10),
      limits = c(0, 100),
      expand = c(0, 0)
    ) +
    labs(
      title = title_text,
      subtitle = subtitle_text,
      x = "Method",
      y = "Accuracy"
    ) +
    theme_classic(base_size = 14, base_family = "Helvetica") +
```

```
    theme(
      axis.text.x = element_text(angle = 0, hjust = 0.5),
      plot.title = element_text(size = 16, face = "bold", hjust = 0.5),
      plot.subtitle = element_text(size = 13, hjust = 0.5),
      legend.position = "none"
    )
}
```

ASA Experiment 1

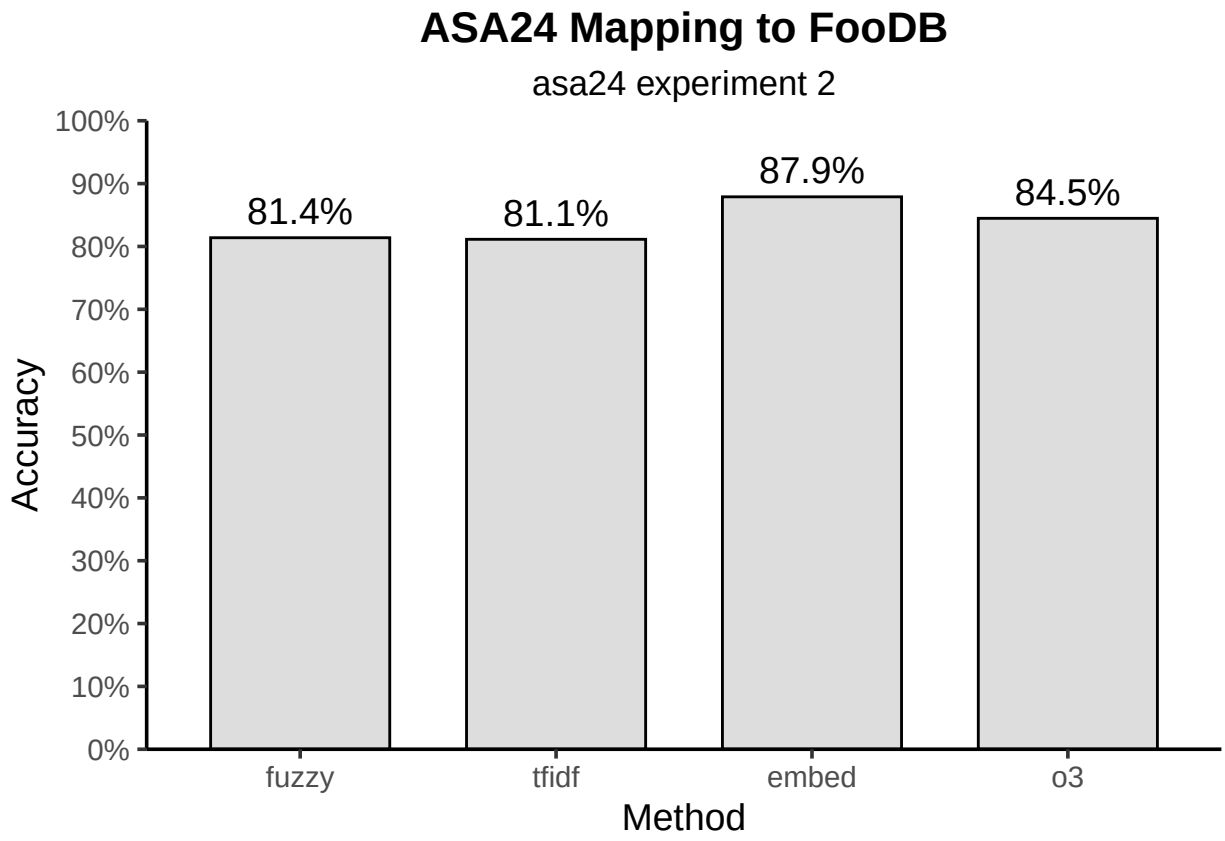
```
plot_accuracy(
  filename = "asa24_experiment_1_accuracy.csv",
  title_text = "asa to foodb mapped targets only",
  subtitle_text = "asa24 experiment 1"
)
```



ASA Experiment 2

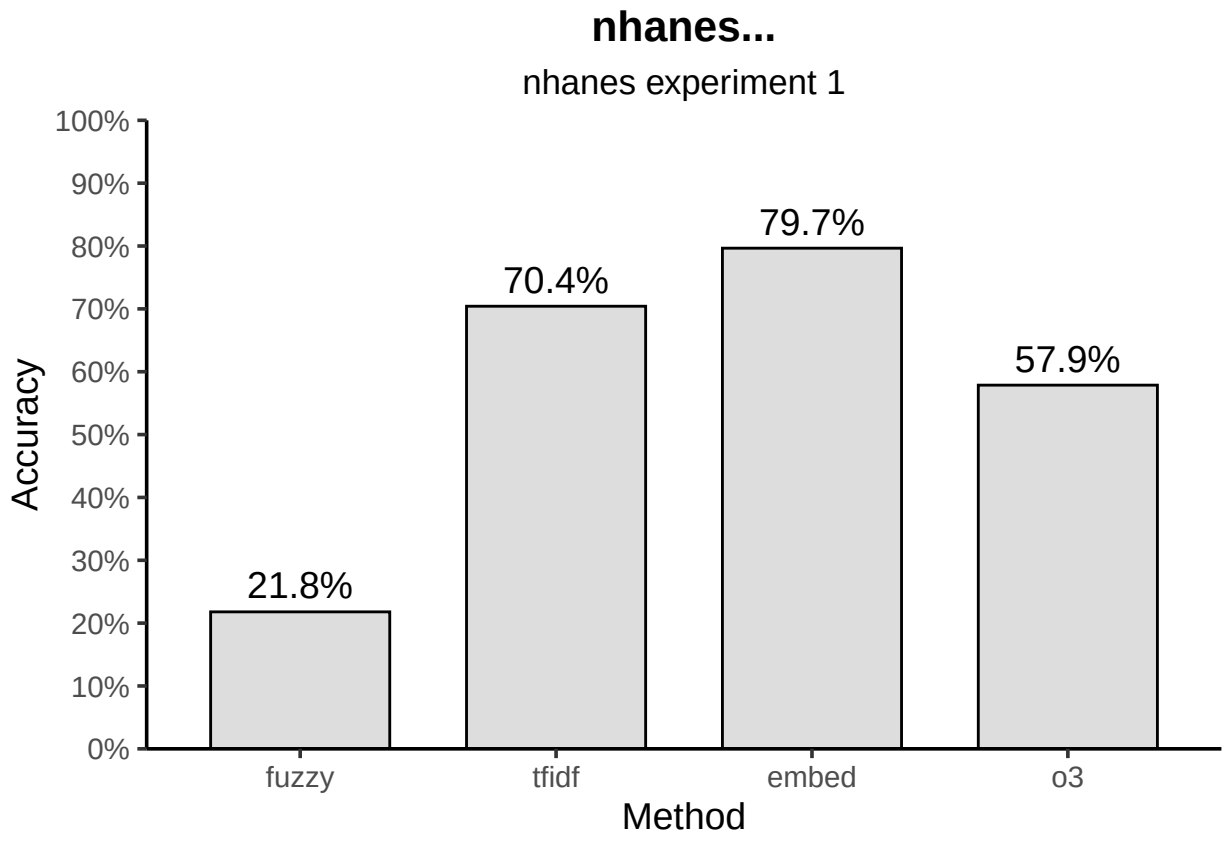
```
plot_accuracy(
  filename = "asa24_experiment_2_accuracy.csv",
  title_text = "ASA24 Mapping to FooDB",
```

```
  subtitle_text = "asa24 experiment 2"
)
```



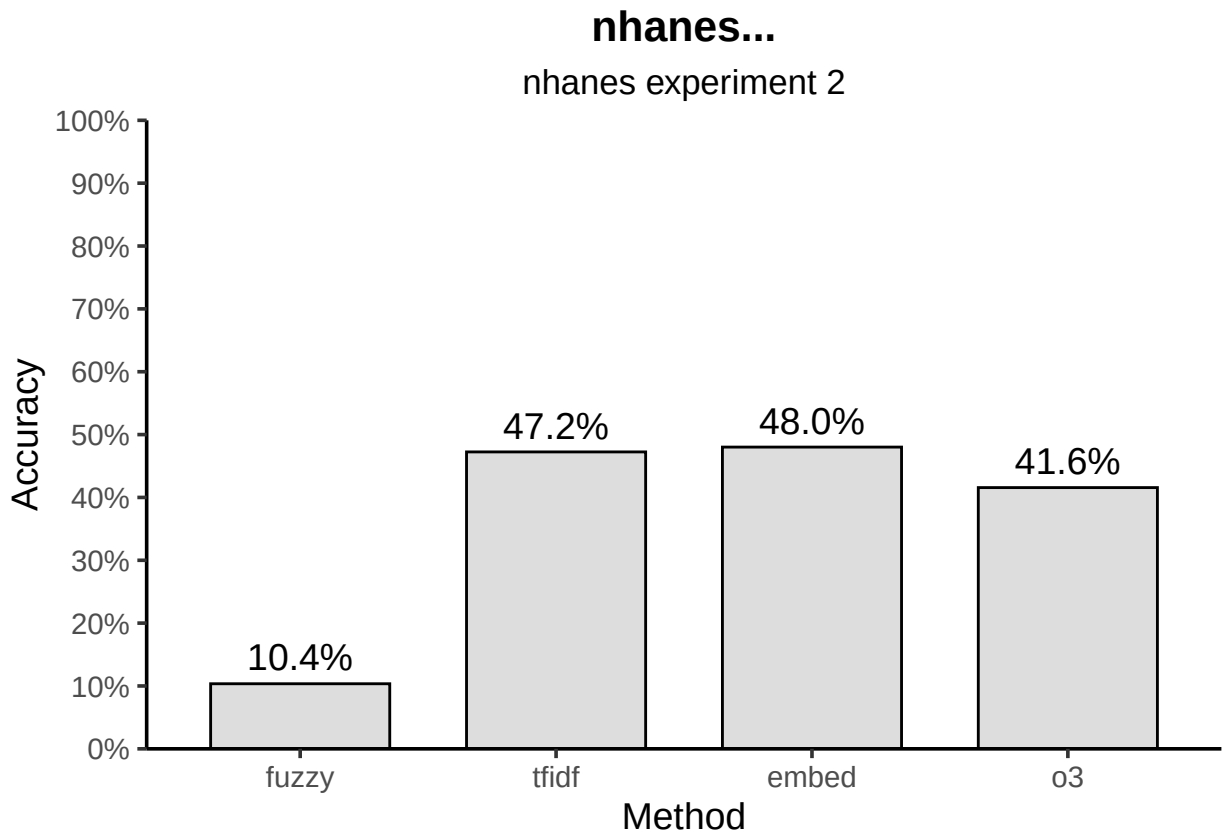
NHANES Experiment 1

```
plot_accuracy(
  filename = "nhanes_experiment_1_accuracy.csv",
  title_text = "nhanes...",
  subtitle_text = "nhanes experiment 1"
)
```



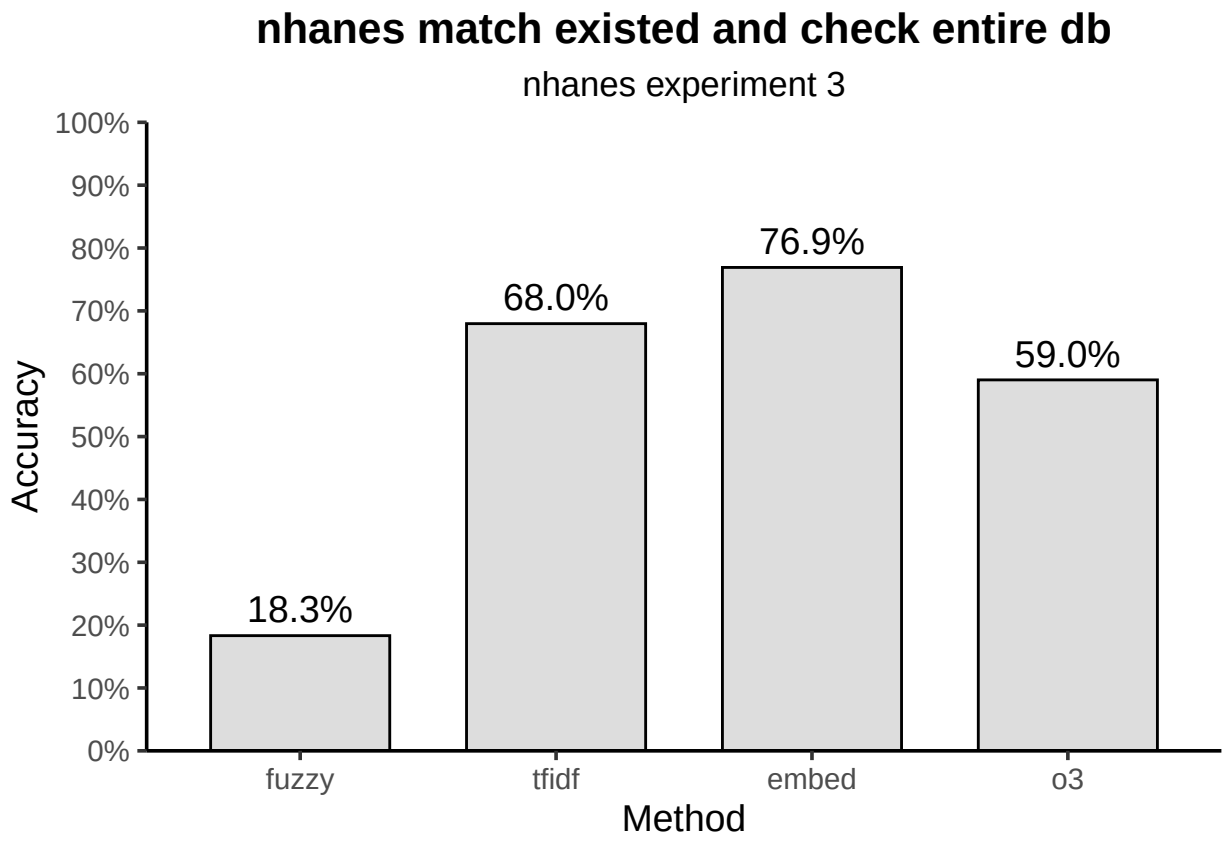
NHANES Experiment 2

```
plot_accuracy(
  filename = "nhanes_experiment_2_accuracy.csv",
  title_text = "nhanes...",
  subtitle_text = "nhanes experiment 2"
)
```



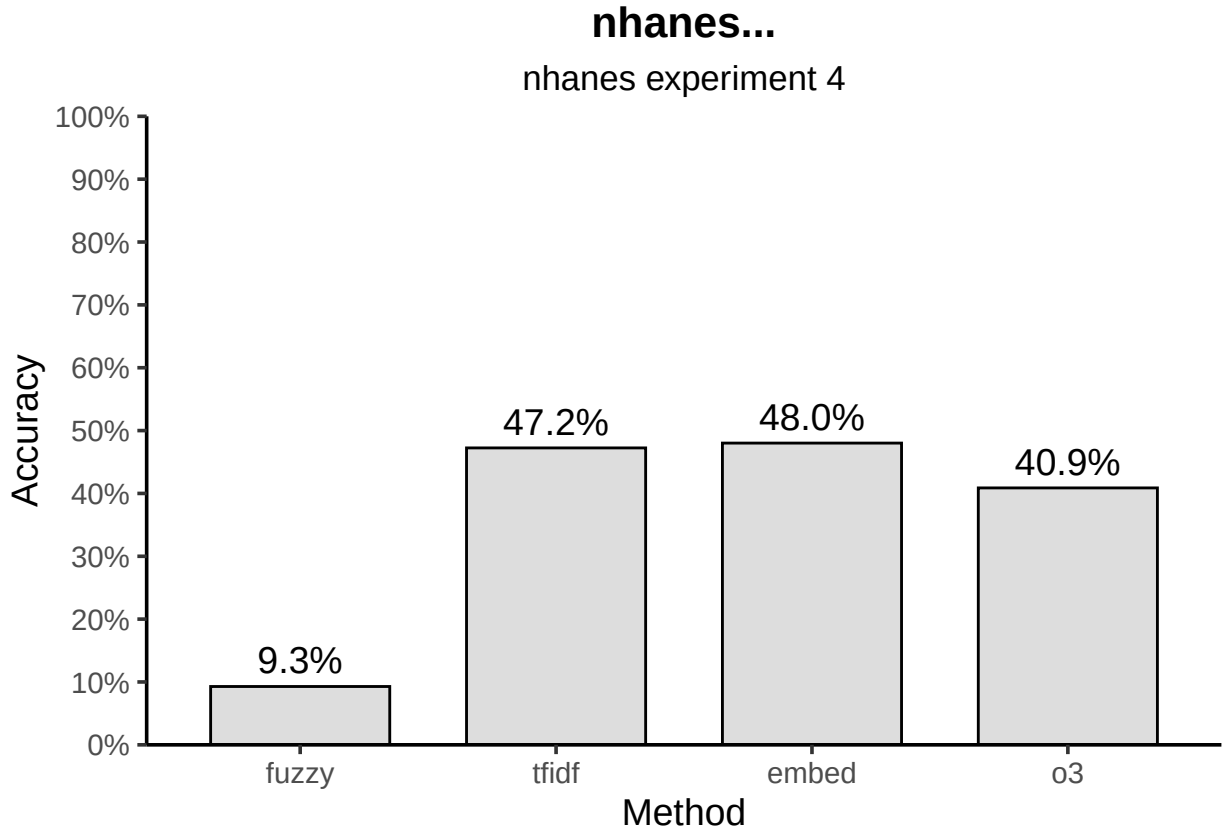
NHANES Experiment 3

```
plot_accuracy(
  filename = "nhanes_experiment_3_accuracy.csv",
  title_text = "nhanes match existed and check entire db",
  subtitle_text = "nhanes experiment 3"
)
```



ASA Experiment 4

```
plot_accuracy(
  filename = "nhanes_experiment_4_accuracy.csv",
  title_text = "nhanes...",
  subtitle_text = "nhanes experiment 4"
)
```


nhanes...
nhanes experiment 4
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Accuracy
9.3%
47.2%
48.0%
40.9%
fuzzy
tfidf
embed
o3
Method