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Assignment 9: Modeling with Poisson Processes

Below are the analyses of how well staffed the restaurant was in each model's simulation. The overall average model performed better than the hourly average model for six of the eight hours, the hourly model outperforming for 11am and 1pm. However, the difference between the models for these two hours was relatively small. Additionally, the overall average model was staffed correctly over 90% of the time, while the hourly average model had a huge variance, dropping to as low as 0.266 for 10am.

```
> avgDay.performance/1000
      01: Understaffed 02: Overstaffed 03: Staffed Correctly
9am             0.037          0.025                  0.938
10am            0.027          0.023                  0.950
11am            0.033          0.017                  0.950
12pm            0.041          0.024                  0.935
1pm             0.032          0.024                  0.944
2pm             0.027          0.025                  0.948
3pm             0.032          0.019                  0.949
4pm             0.030          0.023                  0.947


> simDay.performance/1000
      01: Understaffed 02: Overstaffed 03: Staffed Correctly
9am             0.142          0.007                  0.851
10am            0.266          0.734                  0.266
11am            0.011          0.037                  0.952
12pm            0.457          0.543                  0.457
1pm             0.015          0.038                  0.947
2pm             0.274          0.726                  0.274
3pm             0.810          0.190                  0.810
4pm             0.764          0.236                  0.764
```