**Executive Summary**

From the analysis done based on data (data\_app.csv) provided by Smith’s hotels, we are going to try to answer the following questions:

1. *Will the app lead to increased spending on the part of customers?*
2. *How much of an increase in spending do you expect?*
3. *Do you expect the app’s effect on spending to vary by customers’ characteristics?*

Answer 1):

The analysis revealed a statistically significant difference in the difference of spending of the treatment group and the control group when compared by their average spending before and after the app was introduced. So, we can positively conclude that the app will lead to an increase in customer’s spending.

Answer 2):

Based on the calculations performed the data, the average increase in the spending of a customer aggregates to $821.

Answer 3):

Although the data showed that Men, on an average, spend slightly more than Women & US residents spend a little more than non-US residents, but that stayed consistent even after the app was introduced. So, in conclusion, there is no apparent effect on the spending change by customer characteristics.