Model Documentation

# SN

*Before we get the best parameters*

1. *How many registration window do we need*
2. *How many visiting room do we need*
3. *How many hospital bed do we need*
4. *How many medicine window do we need*

*After we get the best parameters*

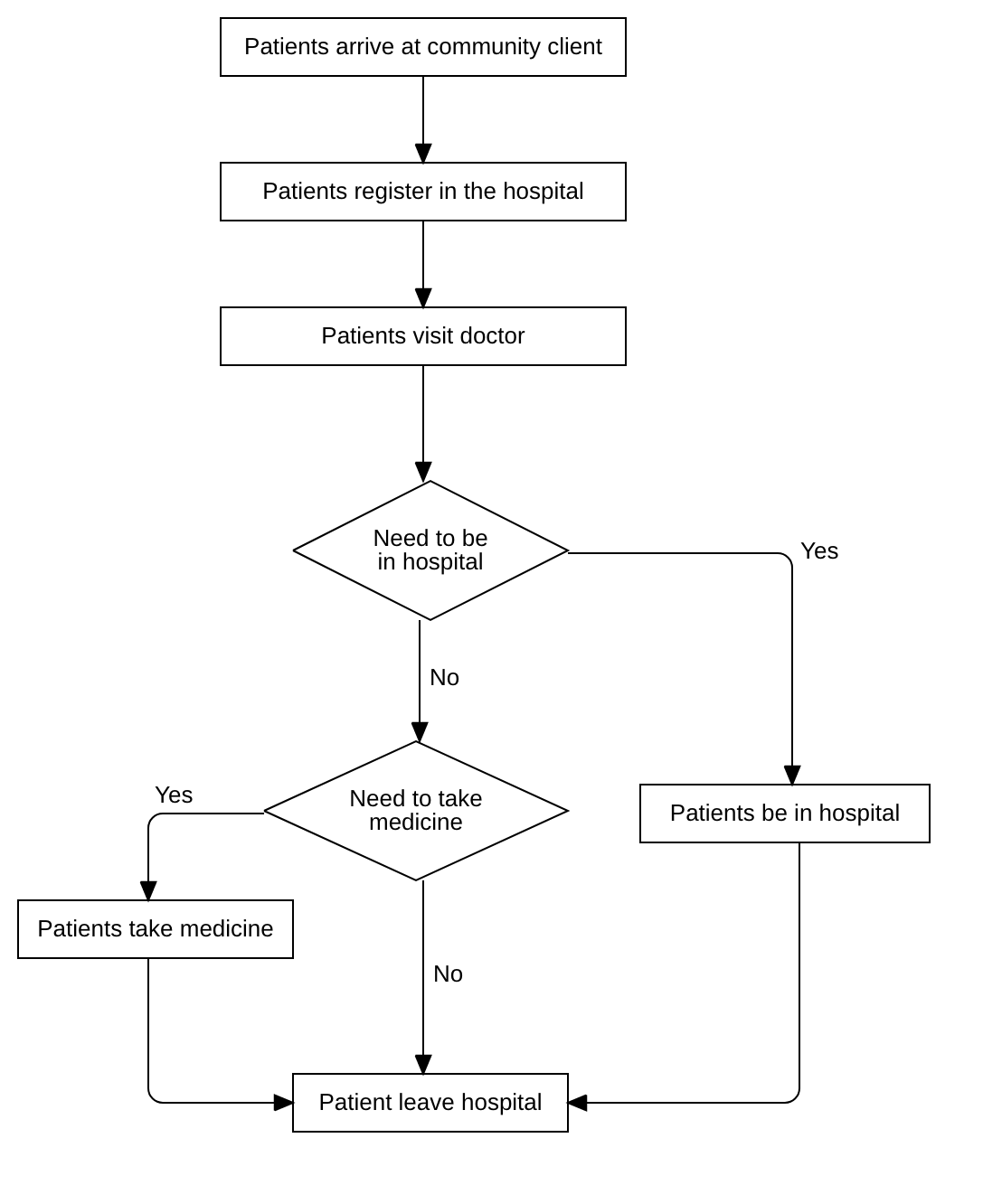
1. *How efficient our model is*

# SPD



# CM

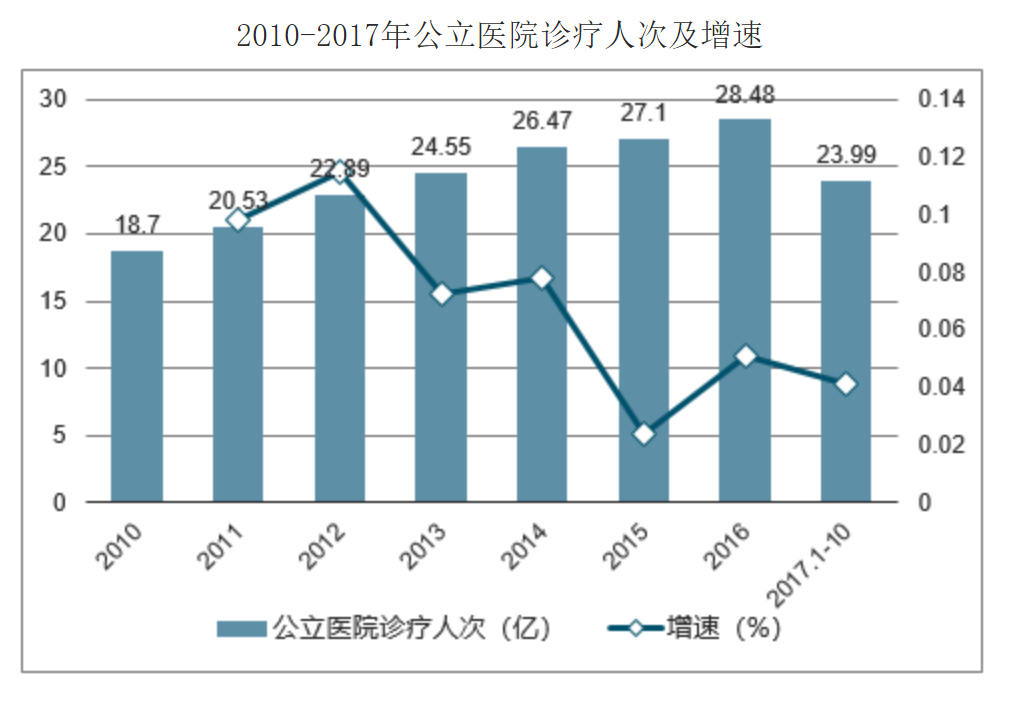
* A Patient arrives at the community client;
* He/She go to register in hospital;
* He/She waits in the queue for registering in hospital;
* It’s he/she’s time to register in hospital;
* He/She registered in hospital;
* He/She is waiting for visiting a doctor;
* He/She visited a doctor;
* He/She may need to be in hospital or take medicine or leave directly;
* He/She leave the hospital;

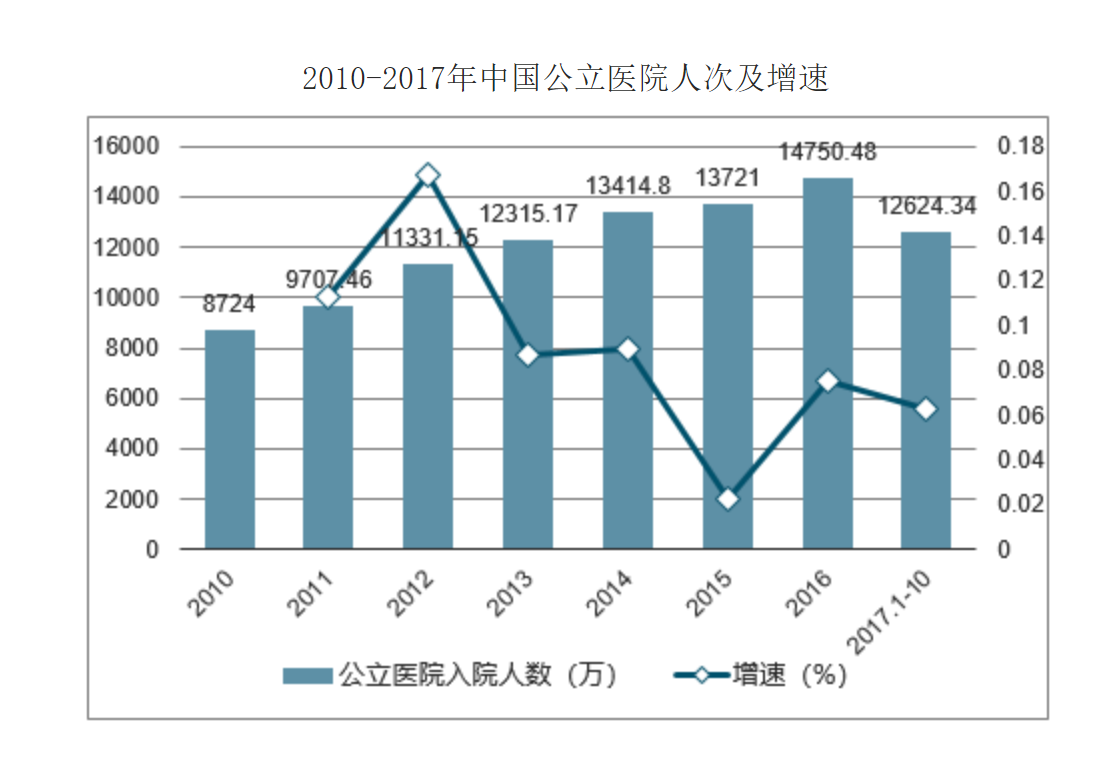


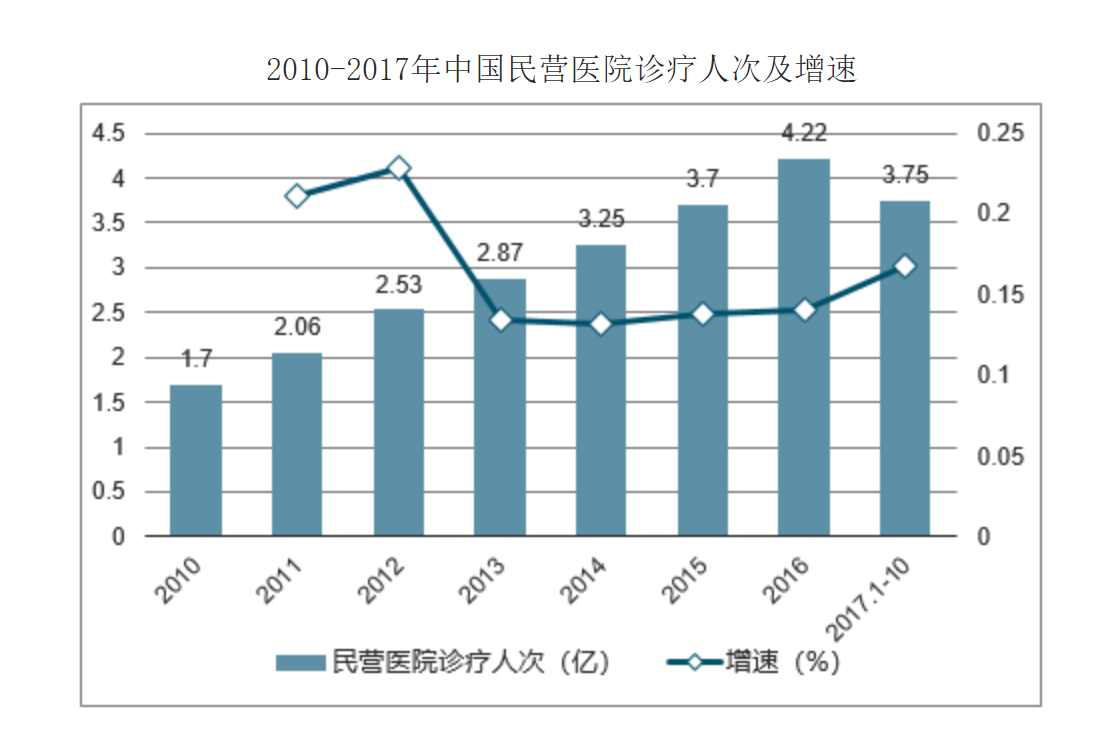
# FM

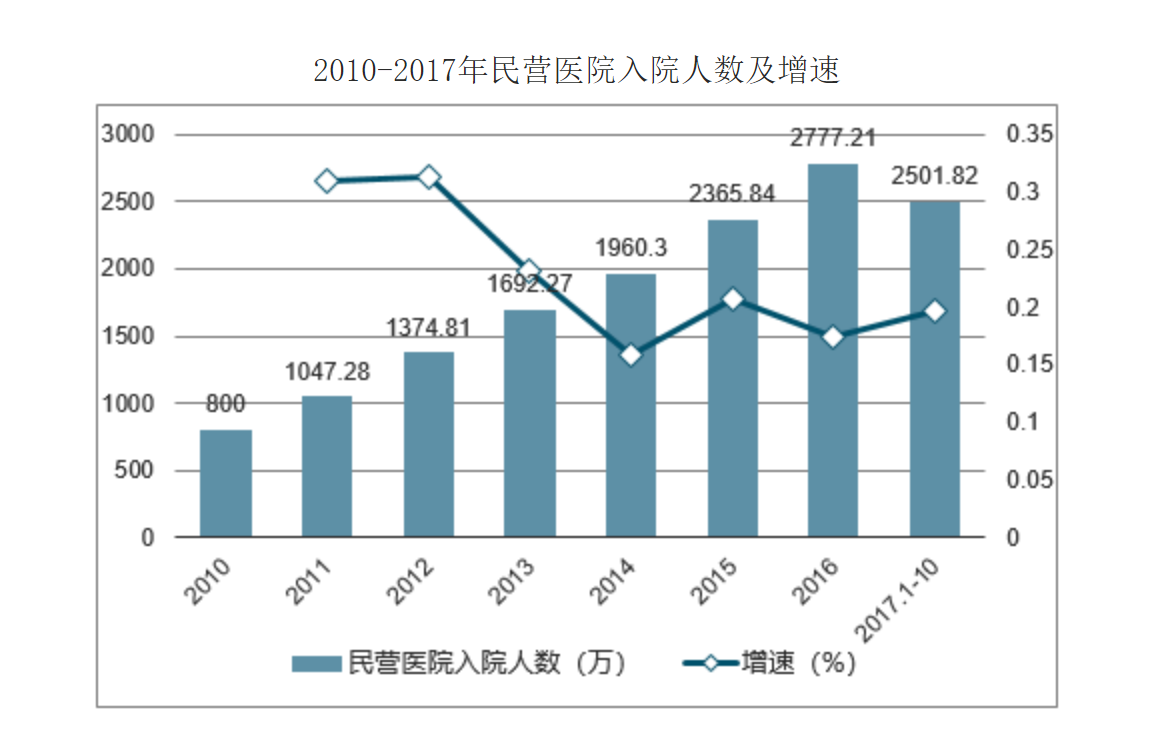
# EM

First of all, We look up some data in the internet to find out How many people would just buy some medicine and leave away, and how many people will have to be hospitalized. According to the data we found in the Internet, we think that if there are 16 people go to the hospital, 14 will just buy some medicine to leave, 1 will have to hospitalized and 1 will do nothing. The data we found as picture 1, 2, 3, 4





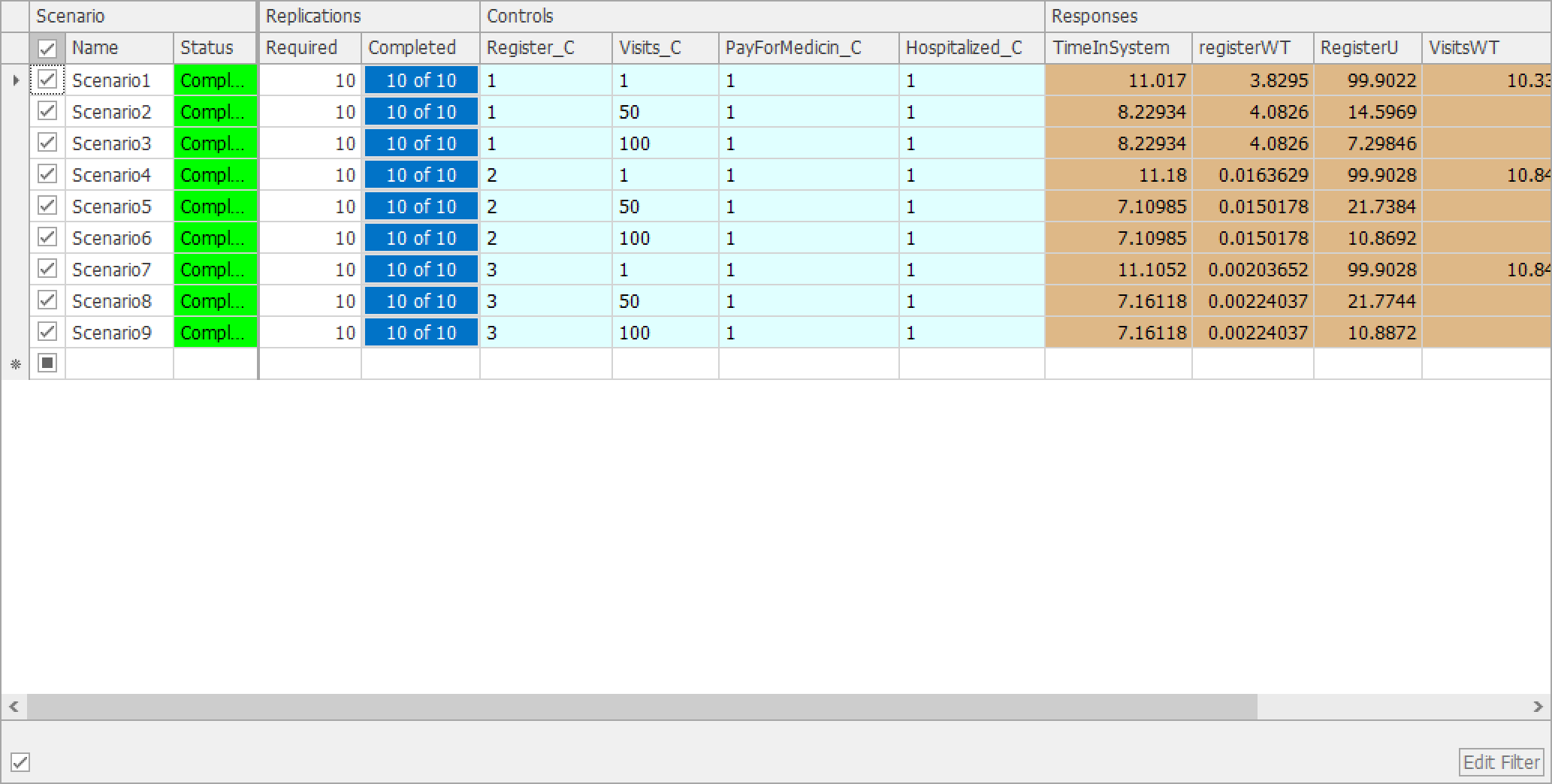




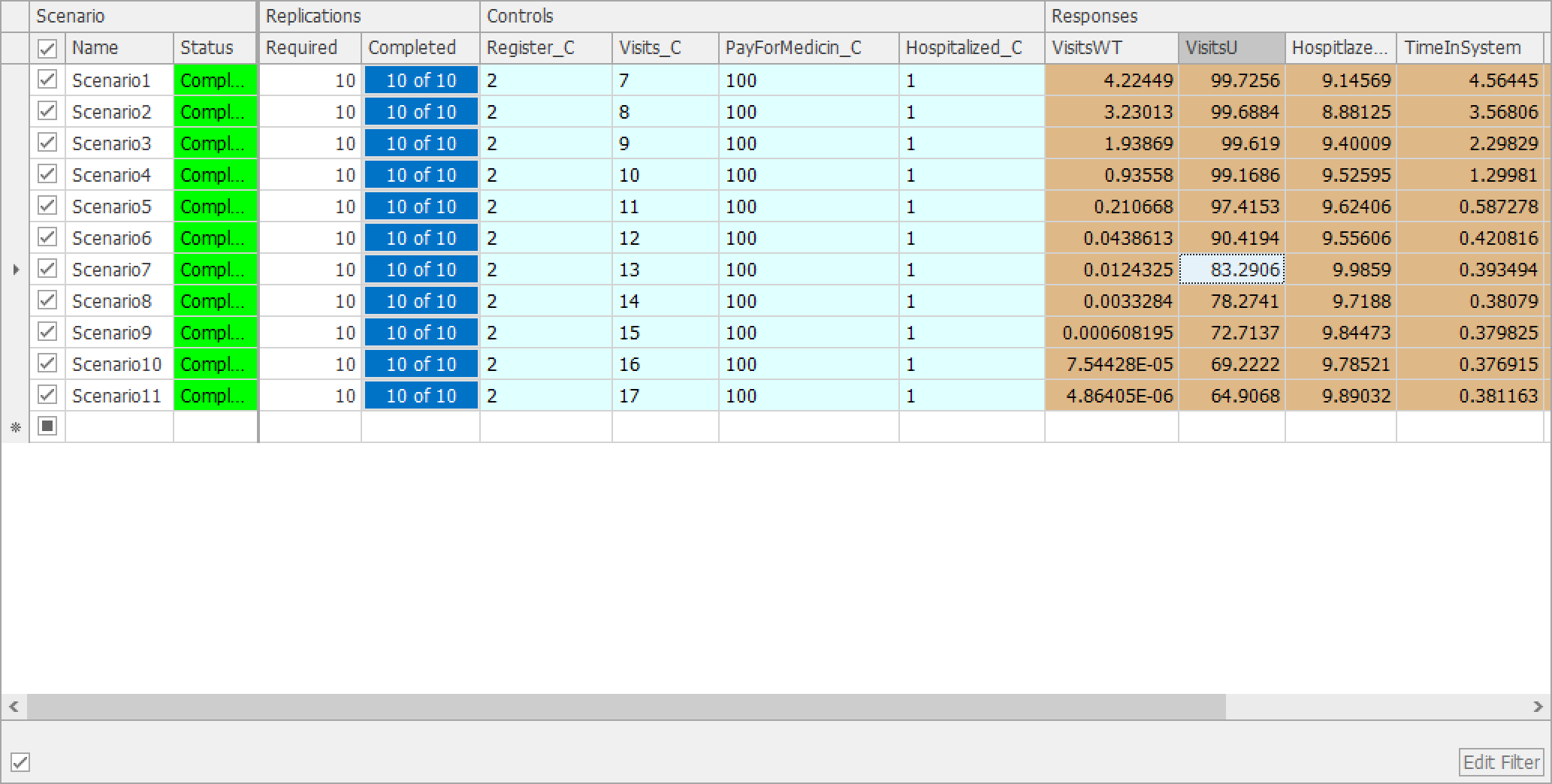
Second, we changed the number of the windows and we concentrated on the customer’s waiting time and the window’s utilization in the window of register, doctors, medicine payment and in the hospitalized bed. Then, we determine the number of all these windows using control variable method.

According to the picture5, we found there should be 2 register windows. According to the picture6, we found that there should be 13 doctors, According to picture7 and picture8, there should be 4 windows for medicine payment. And according to picture 9 and 10, we thing there should be 17 hospitalized root.

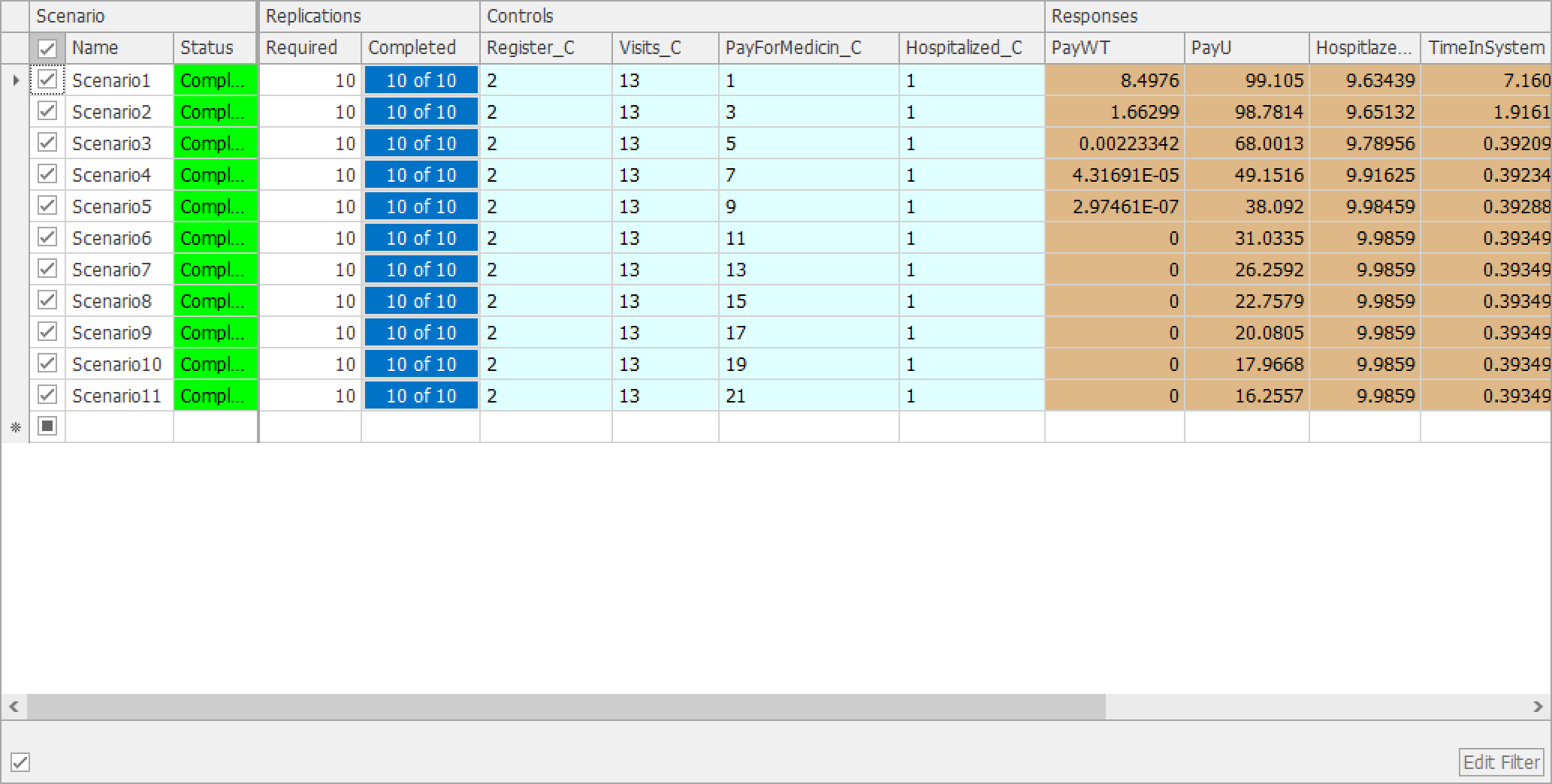
After make sure the best numbers of the windows, we estimate out model by the average time in system and the throughout number. The final result of out model is the data in picture11 and picture12.



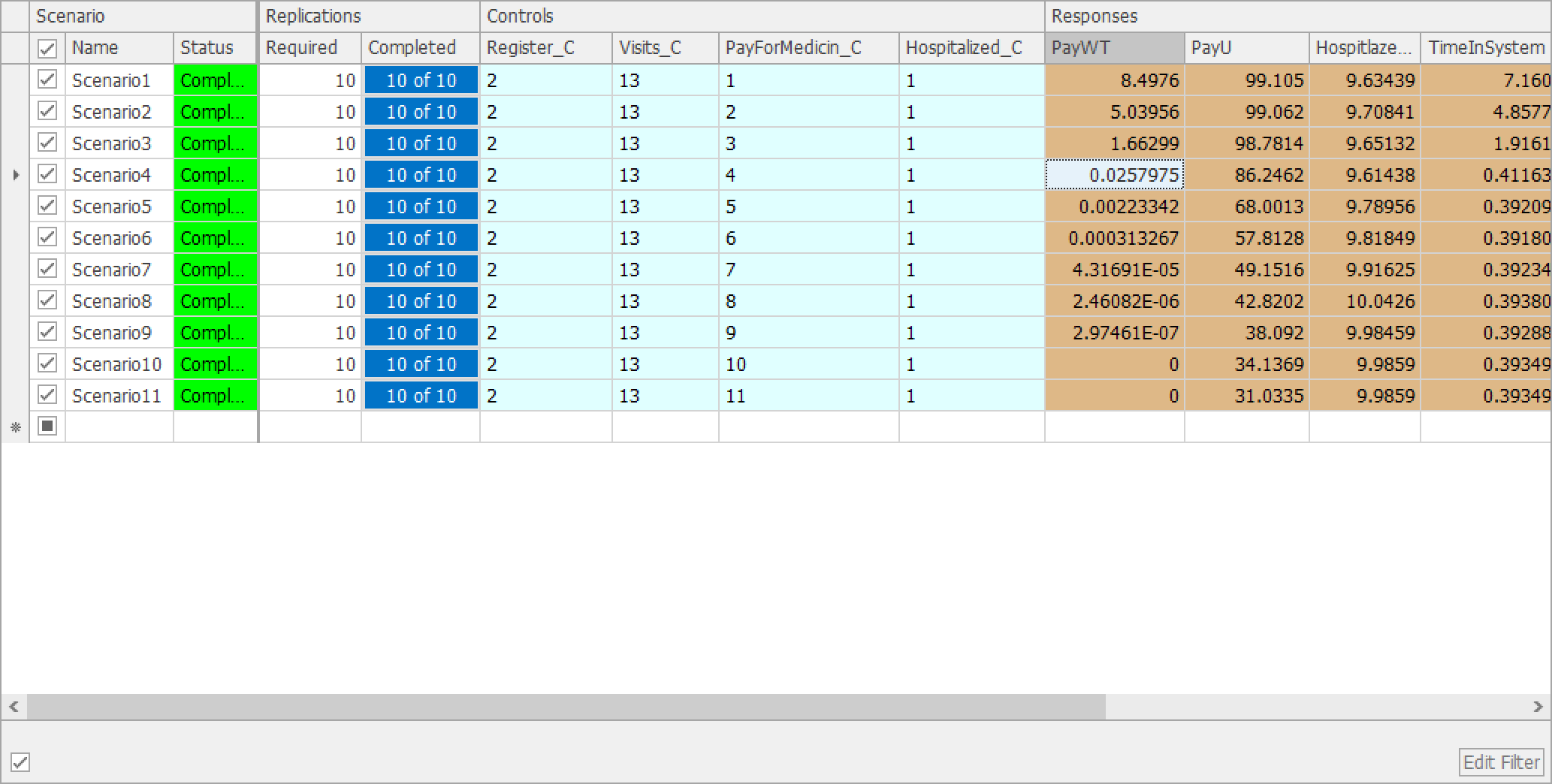
Picture 5



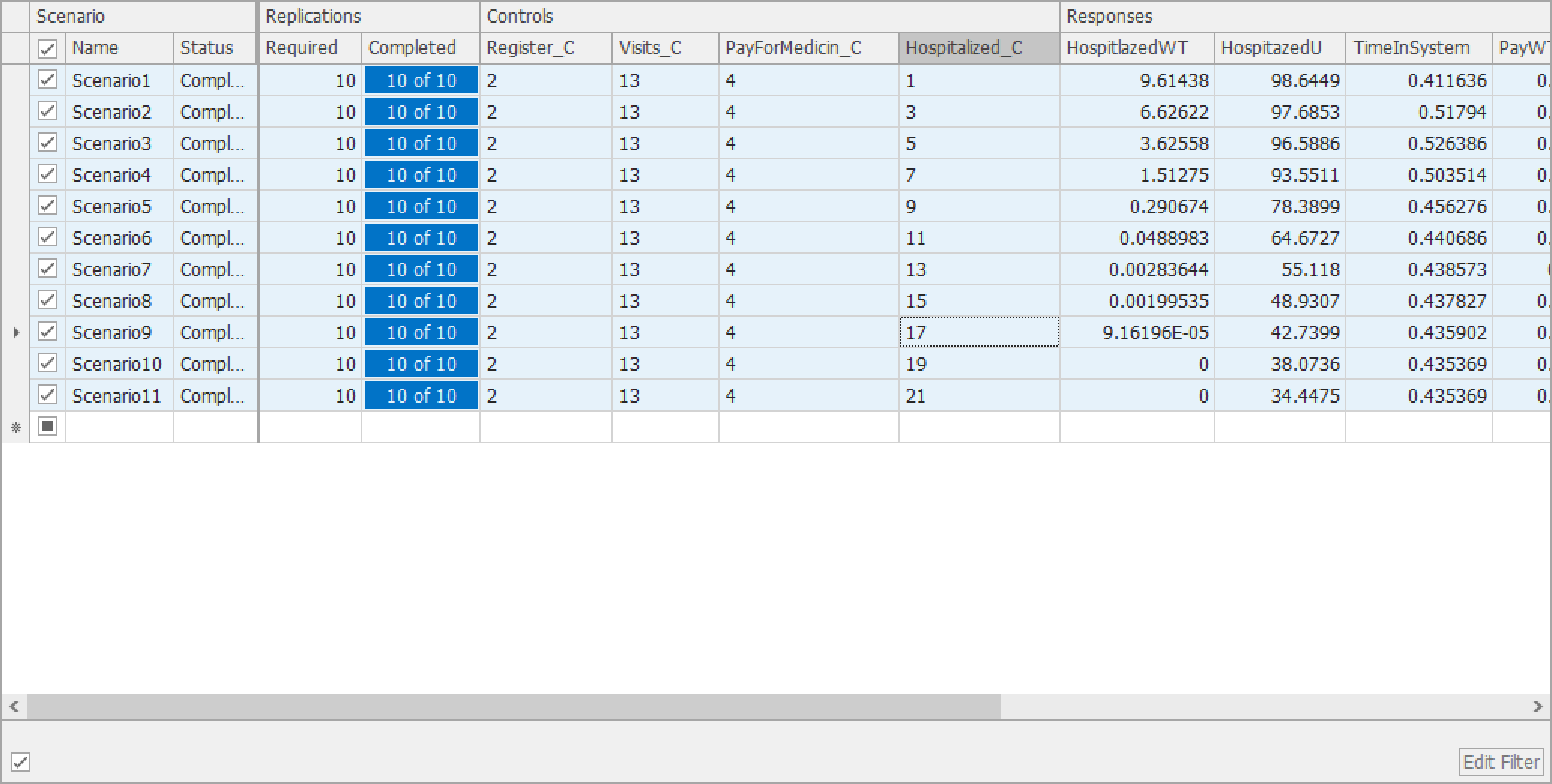
Picture 6



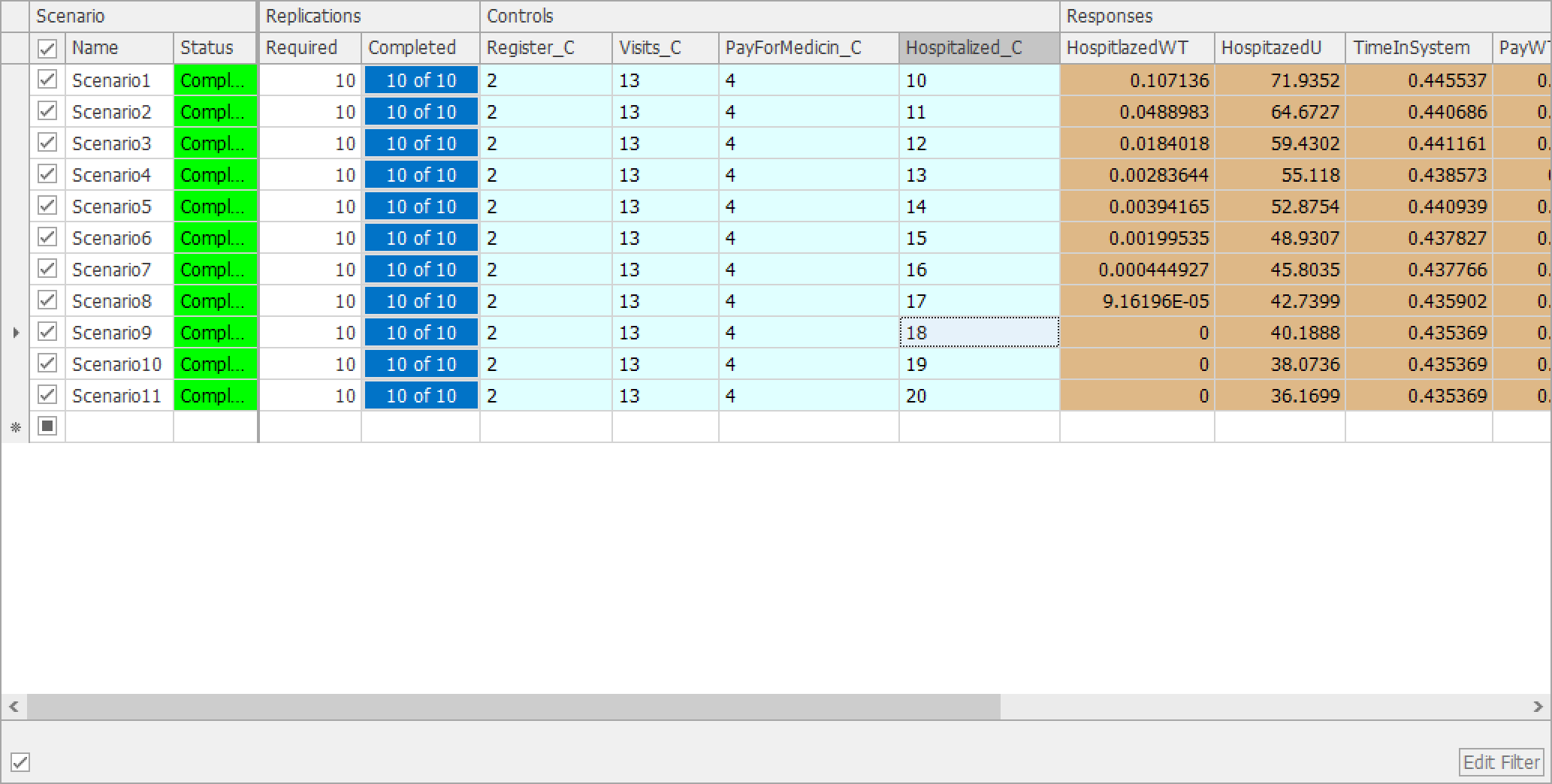
Picture 7



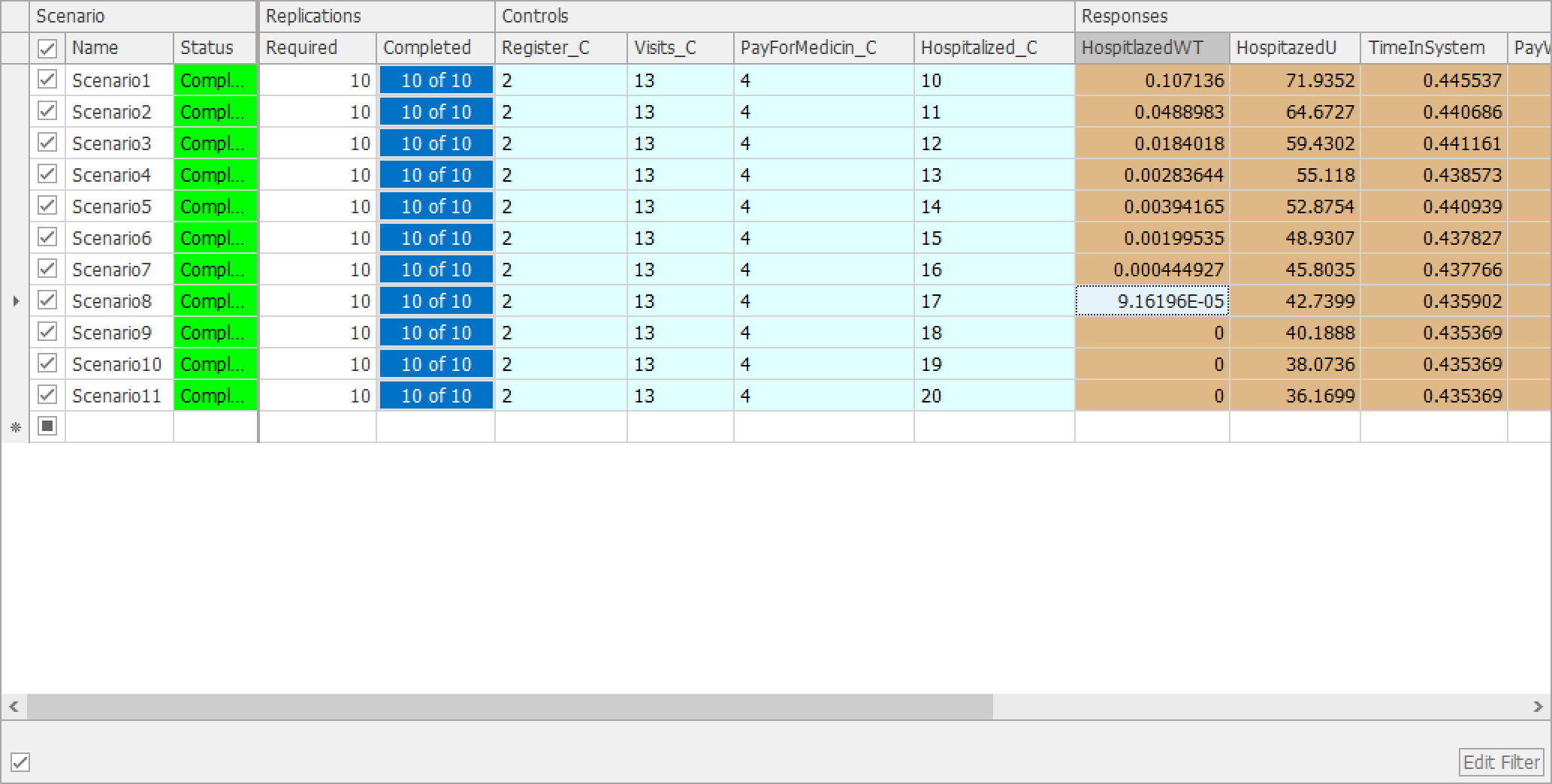
Picture 8

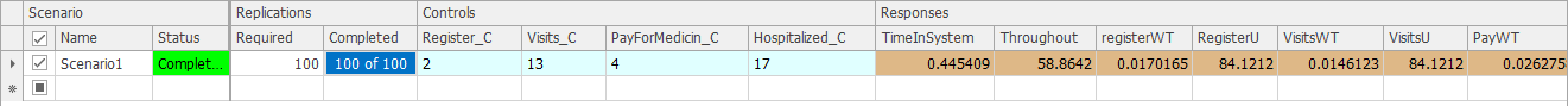


Picture 9



Picture 10



Picture11

# picture11

# 

Picture12

# SR

# IR