

Project title: TurboTax for Nurse Schedulers – Gamification of our Snoozer Onboarding Process

Nothing is certain but death and taxes goes the saying...we cannot avoid the inevitable, but can we make it fun?

Project pitch: TurboTax makes filing taxes (almost) fun, helping to get users stated in a registration process that doesn't feel at all like a registration process. Instead, you feel like you are already working on your taxes! We want nurse schedulers using Medecipher to have a similar experience, feeling like every question we ask is relevant, and they are in the driver seat "choosing their own adventure" for onboarding.

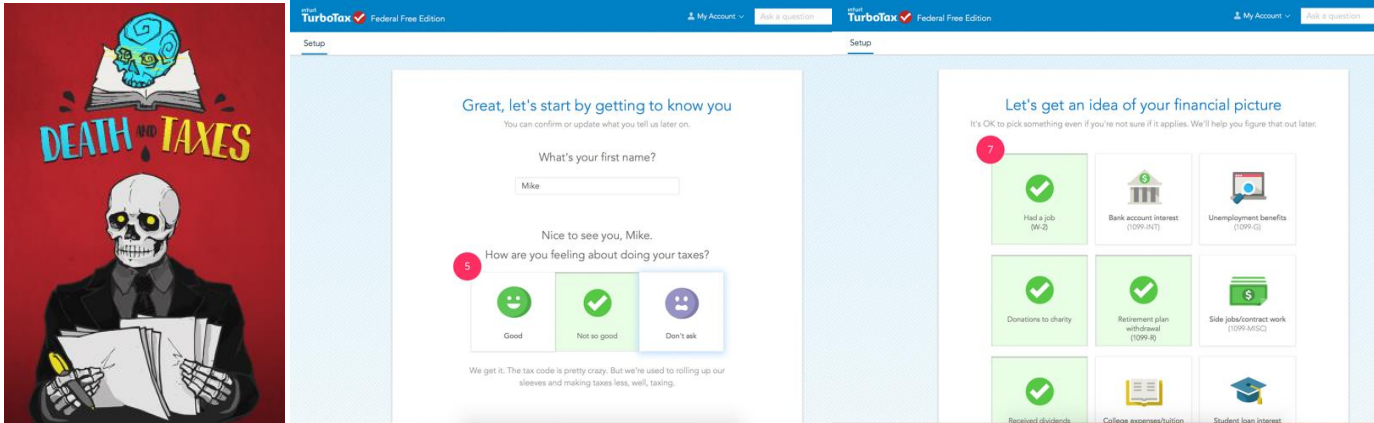


Figure 1 source - <https://www.invisionapp.com/inside-design/ux-review-turbo-tax-makes-filing-almost-fun/>

Your task: Medecipher has designed a snoozer onboarding questionnaire (Appendix A), and we need your help to make this better! You will redesign and implement an interactive onboarding questionnaire in React, and work with our DevOps team (including a Mines '21 graduate!) to upload the responses to our SQL database via an API.

Your will learn:

- Figma
- React or AngularJS
- Connecting to APIs
- Data structures (SQL databases)

You must have:

- Creativity and a good sense of humor!
- Basic understanding data structures and data hierarchy

Our problem:

Nurse staffing is #1 issue facing healthcare leaders today, and our solution addresses the challenges of nursing shortages by introducing sophisticated operations research methods that sequence shifts to align personnel with patient demand, while prioritizing preferences, avoiding unpredictable schedules, and increasing satisfaction.

What we do:

The Medecipher team comprises front-line nurses, visionary nurse informaticists, industry leading data scientists, and highly skilled engineers and developers. We understand the complexity of scheduling and the important role nurse managers hold in creating and maintaining department schedules. Our solution provides decision support tools to help nurse managers simplify that complicated process while incorporating their invaluable clinical expertise and departmental knowledge.

Appendix A - Boring Administrative Registration Process

1 - Onboarding Facility Settings

Choose your facility settings

1. What calendar day is considered the beginning of the work week?
 Sunday Monday

2. Which calendar day is considered weekend shifts for Night Staff employees?
 Friday Saturday Sunday

3. What is the maximum time that an employee can be scheduled for a continuous shift?

4. What is the minimum amount of time that must exist between the end of a standard shift and the beginning of the next standard shift?

5. What is the maximum number of consecutive days that an employee can be scheduled to work? (Maximum: 7 days)

6. What is the full name of your department?

7. Does your department have a commonly used abbreviation or short name associated?

8. What type of department?
 Emergency Intensive Care Medical Surgical
 Labor & Delivery Perinatal

9. Does Night provide 24/7 care?
 Yes No

10. How many Standard Shifts are in a night?

11. How many weeks is your typical Scheduling Period that you post for staff?

12. What is the maximum number of staff that can be approved for PTO on a single shift?

13. What is the maximum number of staff that can be approved for PTO on a single shift?

2 - Scheduling Preferences

Choose your scheduling preferences

1. Does your department follow the same scheduling pattern as the other departments in the facility?
 Yes No I Don't Know

2. How long is the typical Scheduling Period in departments of your type?
 4 Weeks 6 Weeks 8 Weeks

3. How far in advance does the Request Period open for staff to request a shift request?
 4 Weeks 6 Weeks 8 Weeks

4. How long is the request period for night shifts?
 4 Weeks 6 Weeks 8 Weeks

5. What is the maximum amount of time that must exist between the end of one shift and the beginning of the next shift?
 4 Hours 8 Hours 12 Hours

6. In the Request Period, what is the maximum number of consecutive shifts that night staff can request?
 1 Shift 2 Shifts 3 Shifts 4 Shifts

7. When is the future schedule published to night staff?
 2 weeks before first day of future schedule
 3 weeks before first day of future schedule
 4 weeks before first day of future schedule

8. Does the schedule in advance, what is the maximum consecutive days that you can work?
 Emergency Intensive Care Medical Surgical
 Labor & Delivery Perinatal

9. What is the date when your next future schedule that will be open for scheduling request?

10. What is the start date of the next future schedule?

3 - Registered Nurse Preferences

Choose your registered nurse settings

1. How many RNs are currently on the night department request?

2. What are the schedule shift lengths for RNs in a night?
 8 Hours 10 Hours 12 Hours

3. What is the target staffing number for Day Shift RNs in a night?

4. What time does Day Shift start for RNs in a night?

5. Which day alternates Day Shift start times for RNs in a night?
 Yes No I Don't Know

6. Select all additional schedule start times for Day Shifts in a night:
 5:00a 5:30a 6:00a 6:30a 7:00a 7:30a
 8:00a 8:30a 9:00a 9:30a 10:00a 10:30a
 11:00a 11:30a 12:00a 12:30a 1:00a 1:30a

7. What is the target staffing number for Night Shift RNs in a night?

8. What time does Night Shift start for RNs in a night?

9. Which day alternates Night Shift start times for RNs in a night?
 Yes No I Don't Know

10. Select all additional schedule start times for Night Shifts in a night:
 5:00p 5:30p 6:00p 6:30p 7:00p 7:30p
 8:00p 8:30p 9:00p 9:30p 10:00p 10:30p
 11:00p 11:30p 12:00a 12:30a 1:00a 1:30a
 2:00a 2:30a 3:00a 3:30a 4:00a 4:30a

5 - PTO & Holidays

Choose your PTO & Holidays

1. Who can approve PTO Time Off or Leave of Absence requests for night staff?
 Scheduler Unit Manager Manager Director

2. What is the maximum request of Paid Time Off that night staff can make in a single request?
 2 Weeks 3 Weeks 4 Weeks

3. Can night staff make Paid Time Off requests before the Request Period that includes their current shift?
 Yes No

4. How far in advance can night staff make Paid Time Off requests?
 2 Months 4 Weeks 6 Weeks 12 Months

5. Do you have a bank for every night staff members can use Paid Time Off on a night shift or day?
 Yes No

6. Is the bank related to the shift or the day?
 Shift Day

7. How many night staff can Paid Time Off in a single shift or day?

8. Please select the observed holidays for day shift staff:
 New Year's Day Martin Luther King Day President's Day
 Independence Day Labor Day Thanksgiving Day Christmas Eve
 Christmas Day New Year's Eve New Year's Day

9. Does the night department maintain a staff rotation for working on major holidays?
 Yes No

10. What is the start date of the next future schedule?