Innopolis University

Course work on Requirements Engineering

BBQ Reservation Telegram Bot

Team 2:

Abdoulie Kassama
Danil Afanasev
Britikov Konstantin
Khairov Talgat

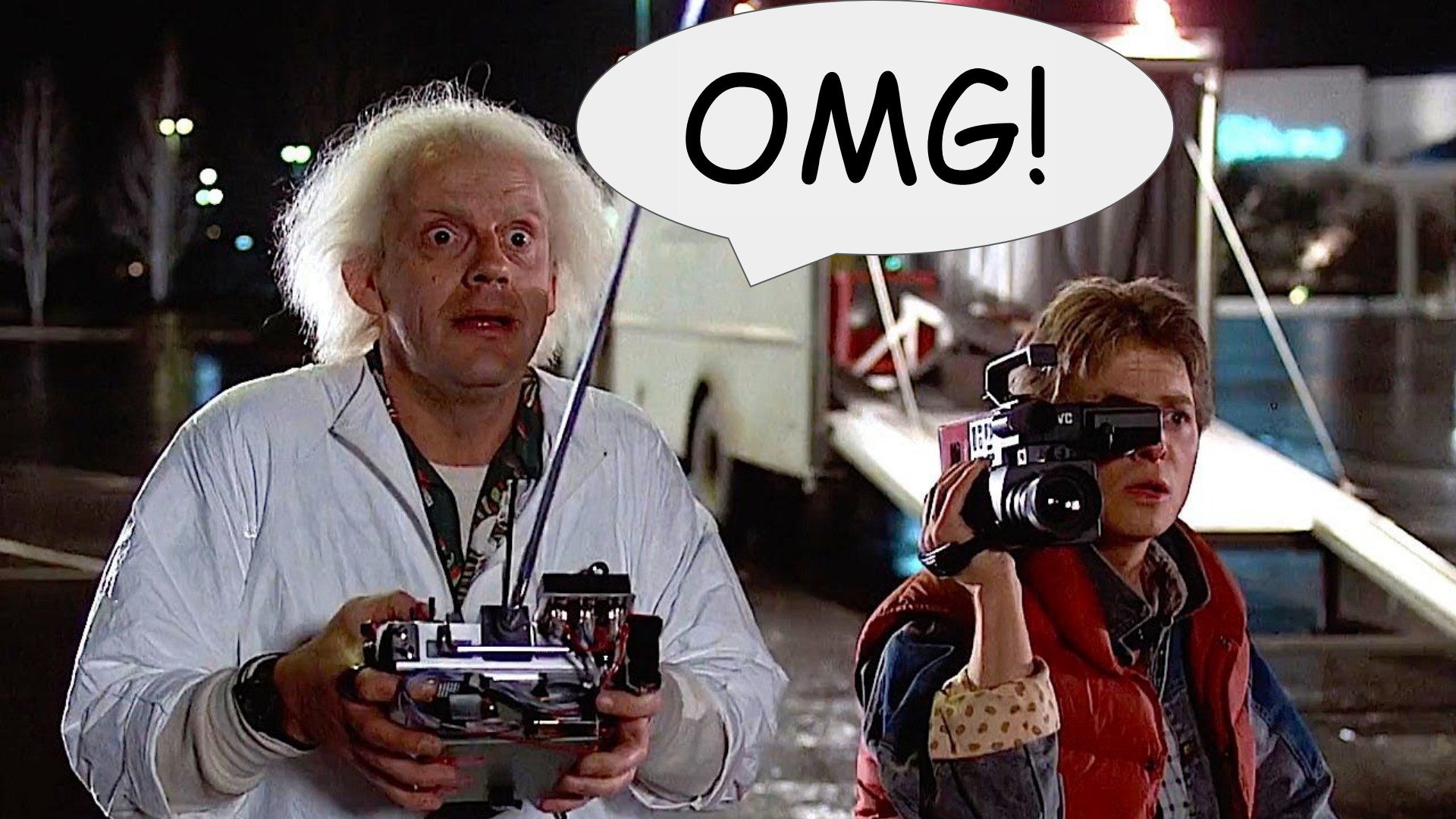
The problem

Inconveniences and reservation collisions in the “system” for reservation barbeque zone in Innopolis ?

The solution

Specialized telegram bot for reserving barbeque zone

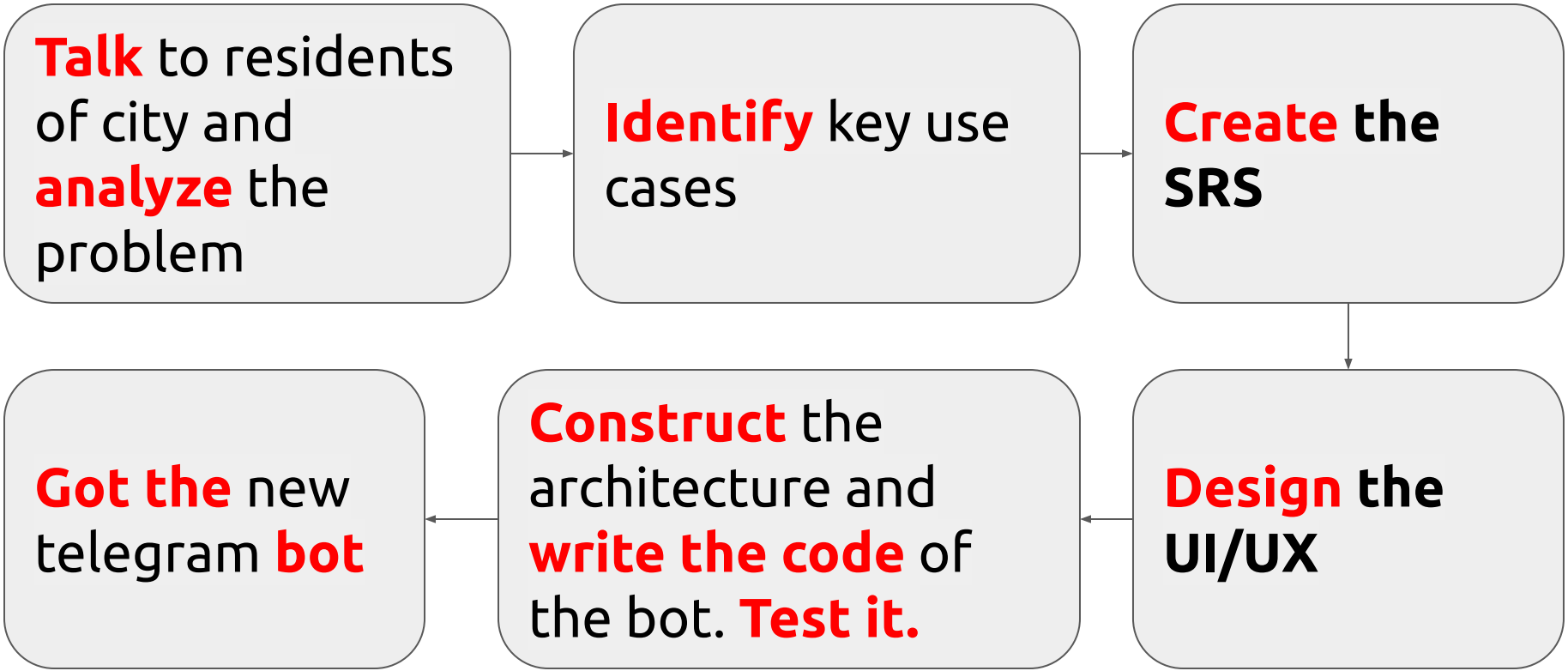
@InnoBBQbot


OMG!

What is our MVP?

- The ability to reserve barbeque zone for specific time period
- The possibility to see the free periods of time
- The ability to cancel the reservation

Our steps


Talk to residents of city and **analyze** the problem
Identify key use cases
Create the SRS
Design the UI/UX
Construct the architecture and **write the code** of the bot. **Test it.**
Got the new telegram **bot**

What did we have to change in the requirements document, and why?

In the initial project proposal it is said that “it is possible to use” Google Sheets API.

Considering that our customer doesn’t want the users to edit the reservations schedule manually, we have decided to use relational database in our application.

Besides that, nothing doubtful has been observed during building MVP.

What requirements we decided to cover and not to cover in the MVP, and why?

Covered:

- Working bot with all dialogue menus and UI;
- Connection to the database;
- Possibility to submit, view and cancel reservation;
- Few constraints (such as collisions, showing only available slots, showing only current and future dates);

Not covered:

- Queue for reservation;
- Notification for when queued spot is available

Decisions

Chose the platform of the telegram to create a bot

- Popular app in Innopolis;
- Many choose Telegram bot over other apps like web.

Chose the library to work with Telegram

- python-telegram-bot

Chose SQLAlchemy

- Provides a generalized interface for creating and executing database;
- No need to write SQL statements.

Short demo video

RESERVATION

Type **/start**, to start conversation with the bot.

Click on **Reserve** to start the reservation process.

Select the **month** you want to make a reservation for.

Select the **day**.

Then select the **hour**.

Reservation complete.

RESULTS
Straight Ahead

Importance (for the city/society)

- ★ Solving the problem of reservation collisions
- ★ Simplifying the process of reservation the barbeque zone
- ★ Make life little better ;)

Technical contribution

- ★ Automated the management of reservation system of the barbeque zone
- ★ Created another “101” bot for the city :)

Potential for future work

- ★ Improving the bot according to residents feedback and suggestions
- ★ Creating new use cases
- ★ We can use got experience in industrial project

RIGHT!!!
We have done it!

Lessons learned

Make sure everyone (team members and client/user) voice is heard and taken into account!

Make sure appropriate technology stack is chosen, then start working(we failed to define classes):

1. We started with Django ORM, because we’re used to it.
2. Then we switched to Tornado based library that works with Telegram API, to which we had to add SQLAlchemy(at least it was easy to learn).

Work like Musketeers - “One for all and all for one”

Thank you
for Your attention
@InnoBBQbot