



PROJECT HORIZON OF STARS

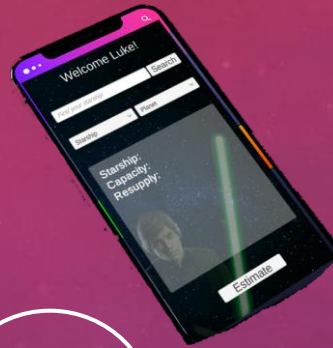
“YOU HAVE TO AIM AT THE STARS TO REACH THE SUN”

DOCUMENT SOFTWARE ARCHITECTURE V1.0

PROGRAMMER AND SOFTWARE ARCHITECT WILLY THORPE

SOLUTION

SOFTWARE ARCHITECTURE



App mobile
Unity + C#

Providing **interoperability**
for client devices



AZURE SERVER LAYER ABSTRACTION

MICROSERVICE ESPECIALIZED

.NET C# + GRAPHQL



Service Database to
forecast **B.I. analysis**
with information users



API swapi.co
**providing
information**



CALCULATION BASIS

SUN

EARTH

TARGET
PLANET

Translation: 4848 DAYS
Orbital_period: 4848
SPEND ENERGY: 13 MGLT

Translation: 365 DAYS
Orbital_period: 365
ENERGY: 1 MGLT



Name: Falcon
Capacity: 75 MGLT

With the simple math **three rule** we have 13 MGLT away and **2 times** needed for supply to arrival this target planet

WAS BUILT ONE LAYER ABSTRACTION ON AZURE SERVER WITH ARCHITECTURE SOA WITH SPECIALIZED MICROSERVICES AND THEIR RESPECTIVE ENDPOINTS PROVIDING INTEROPERABILITY FOR CLIENT DEVICES

SOLUTION .NET CORE C# + WCF + AZURE SERVICES + GRAPHQL + MYSQL

API AZURE SERVER

[HTTP://API-HORIZONOFSTARS.AZUREWEBSITES.NET/API-HORIZONOFSTARS.ASMX](http://api-horizonofstars.azurewebsites.net/api-horizonofstars.asmx)

DOCUMENTATION AND REPOSITORY

SWAGGER

[HTTPS://APP.SWAGGERHUB.COM/APIS-DOCS/WILLYTHORPE/HORIZONOFSTARS/1.0.0](https://app.swaggerhub.com/apis-docs/willythorpe/horizonofstars/1.0.0)

GITHUB

[HTTPS://GITHUB.COM/WILLYTHORPE/HORIZONOFSTARS](https://github.com/willythorpe/horizonofstars)

ENDPOINTS

RECOVER **ALL PLANETS** USING GRAPHQL TO BRING ONLY THE NECESSARY DATA

[HTTP://API-HORIZONOFSTARS.AZUREWEBSITES.NET/API-HORIZONOFSTARS.ASMX?OP=GETALLPLANETS](http://api-horizonofstars.azurewebsites.net/api-horizonofstars.asmx?op=getallplanets)

RECOVER **ALL STARSHIPS** USING GRAPHQL TO BRING ONLY THE NECESSARY DATA

[HTTP://API-HORIZONOFSTARS.AZUREWEBSITES.NET/API-HORIZONOFSTARS.ASMX?OP=GETALLSTARSHIPS](http://api-horizonofstars.azurewebsites.net/api-horizonofstars.asmx?op=getallstarships)

RECOVER **CALC MGLT** NECESSARY UNTIL THE PLANET BASED ON EARTH AND SUN

[HTTP://API-HORIZONOFSTARS.AZUREWEBSITES.NET/API-HORIZONOFSTARS.ASMX?OP=GETCALCMATHMGLT](http://api-horizonofstars.azurewebsites.net/api-horizonofstars.asmx?op=getcalcmathmglmt)

RECOVERS **SHIP INFORMATION** THROUGH GRAPHQL NAME SEARCH

[HTTP://API-HORIZONOFSTARS.AZUREWEBSITES.NET/API-HORIZONOFSTARS.ASMX?OP=GETFILTERSTARSHIP](http://api-horizonofstars.azurewebsites.net/api-horizonofstars.asmx?op=getfilterstarship)

CALCULATE HOW MANY STOPS WILL BE NECESSARY FOR THE SHIP TO REACH A PLANET

[HTTP://API-HORIZONOFSTARS.AZUREWEBSITES.NET/API-HORIZONOFSTARS.ASMX?OP=CALCSTOPRESUPPLY](http://api-horizonofstars.azurewebsites.net/api-horizonofstars.asmx?op=calcstopresupply)

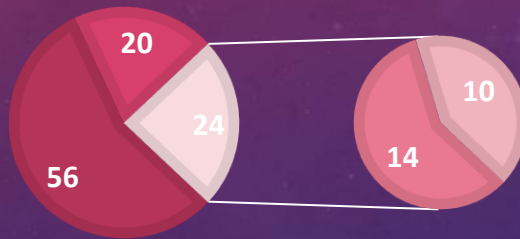
INSERT INFORMATION TO EACH CONSULTATION OF USERS IN THE DATABASE FOR **FUTURE B.I. ANALYSIS**

[HTTP://API-HORIZONOFSTARS.AZUREWEBSITES.NET/API-HORIZONOFSTARS.ASMX?OP=INSERTBI](http://api-horizonofstars.azurewebsites.net/api-horizonofstars.asmx?op=insertbi)

BUSINESS INTELIENCE

THE SYSTEM RECORDS INFORMATION FOR THE PREPARATION OF B.I. FUTURE AND FORECAST

ANALYSIS OF RESULTS
AND TRENDS FOR DATA
MINING



MySQL Workbench

HorizonOfStars x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

osmoc913_horizonofstars

Tables

horizonofstars

Views

Stored Procedures

Functions

horizonofstars x

Limit to 1000 rows

1 • `SELECT * FROM osmoc913_horizonofstars.horizonofstars;`

Result Grid

idhorizonofstars	nmName	nmStarship	nmCapacity	nmResupply	dtDate
50	Thorpe	Millennium Falcon	75	0	28-02-2020 19:24:47
51	Thorpe	Millennium Falcon	75	1	28-02-2020 19:24:53
52	Willy	Death Star	10	1	29-02-2020 13:58:29
53	Willy	X-wing	100	0	29-02-2020 13:58:36
54	Willy	X-wing	100	1	29-02-2020 13:58:39
55	Willy	X-wing	100	1	29-02-2020 13:58:43
56	Willy	X-wing	100	1	29-02-2020 13:58:46
57	Willy	Millennium Falcon	75	1	29-02-2020 13:58:53
58	Willy	Millennium Falcon	75	1	29-02-2020 13:58:57
59	Willy	Millennium Falcon	75	1	29-02-2020 13:59:00
60	Willy	Millennium Falcon	75	0	29-02-2020 13:59:07
61	Will Robinsons	Falcon Delorian	10	15	29-02-2020 18:50:46
62	Willy	Executor	40	1	01-03-2020 11:17:27
63	Willy	Millennium Falcon	75	1	01-03-2020 11:17:51
NULL	NULL	NULL	NULL	NULL	NULL

Administration Schemas

Information

Table: horizonofstars

Columns:

- idhorizonofstars int(11) AI PK
- nmName varchar
- nmStarship varchar
- nmCapacity int(11)
- nmResupply int(11)
- dtDate varchar

horizonofstars 1 x

Output

Action Output

#	Time	Action	Message
✓ 1	11:46:49	SELECT * FROM osmoc913_horizonofstars.horizonofstars LIMIT 0, 1000	63 row(s) returned

The background is a gradient of deep purple and blue, filled with numerous out-of-focus circular light spots (bokeh) in various shades. Overlaid on the left side are several white, semi-transparent circular elements: a large scale with numerical markings from 140 to 260, and several smaller concentric circles with partial arcs and arrows, suggesting motion or a technical diagram.

THANK YOU FOR YOUR
VALUABLE ATTENTION!

DREAMS ARE POSSIBLE WHEN WE BELIEVE IN IT