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Automation manager

Building Distributed System Project Scope

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2023

Author's declaration of originality

I hereby certify that I am the sole author of this thesis. All the used materials, references to the literature and the work of others have been referred to. This thesis has not been presented for examination anywhere else.

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05.03.2023

List of abbreviations and terms

OSRS   OldSchool RuneScape

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1   Introduction

Since the beginning of online computer games, people have used various means to gain an advantage. Bots are widely used in MMORPGs (Massive multiplayer online role-playing games) to automate repetitive tasks like combat, production, and gathering. The goal of automation is either monetary or educational. Black markets enable people to sell their in-game currency and items for real-world cash. On the other hand, computer games offer a simple, well-defined environment to practice writing algorithms.

RuneScape was launched on January 4th, 2001 (Chalk, 2021), and has consistently been one of the most popular MMORPGs in the world (Saltzman, 2012). There are multiple platforms that enable writing bots. Either by API-s or colours to interact with in-game objects.

Goal of this project is to create an automation manager what enables convenient management of multiple in-game accounts. Providing convenient tool to couple scripts and accounts, give overview of progress made during automation operations. Current automation tools only allow manually changing the script, what is slow and doesn't scale.
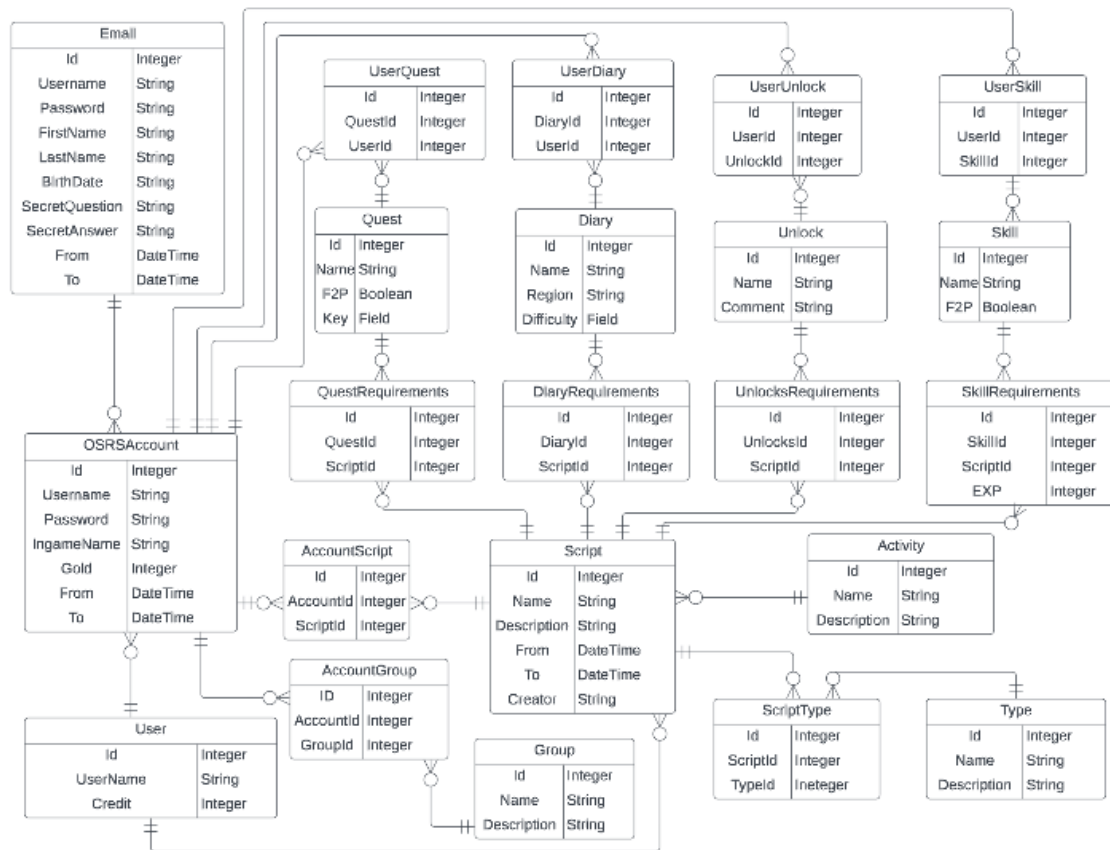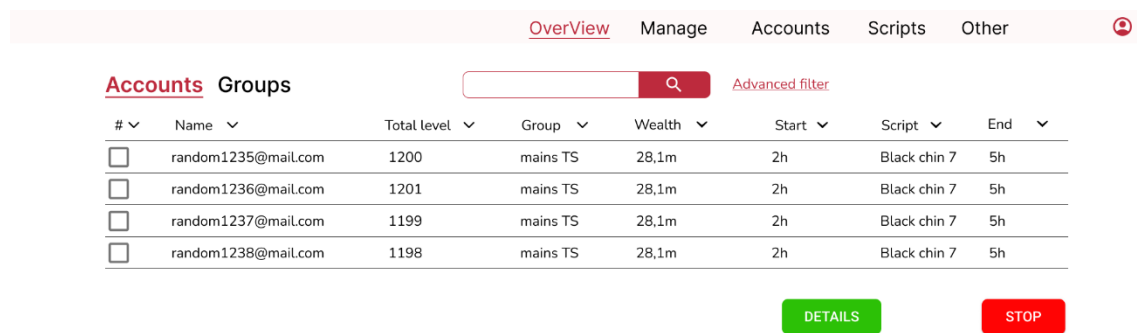
2   Diagrams

Figure 1. Entity relationship diagram

3   Project Scope

The scope of the current project is to create an automation manager to enable the convenient operation of multiple automation scripts and in-game accounts. The user should be able to add an in-game account and script with all the necessary details, for example, quests, diaries, skills, and unlocks. The user must be able to group accounts to operate them as one entity. Furthermore, there must be a possibility to group scripts by activity and type.

Figure 2. Overview page enables seeing running automations.

ADD NEW ACCOUNT

Active accounts
tommyK45@mail.com

Banned accounts
toomask95@mail.com
tondiraba@mail.com
normy79a@mail.com
normalna9a@mail.com

Adding new account

E-mail information

E-mail

Name

Country

BirthDate

Password

Secret Question

Password

OSRS account information

Password

Ingame name

CLOSE ACCOUNT   CREATE

Figure 3. Adding new in-game account to database

ADD NEW SCRIPT

Active scripts
Zulrah

Archived scripts
Making soft clay
Mining iron ore
Making pie shells
Filling vials

Adding new script

Script information

Name

Activity

Type

Description

GP / hr

+ Skill exp / hr

Requirements

Quest   Imp catcher

+ Skill   Magic   55

ARCHIVE SCRIPT   CREATE

Figure 4. Adding new script to the database

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Scripts

# ∨	Name ∨	Type ∨	Money made ∨
☐	Hunting black chinchompas	Skilling/Hunter	841,688 gp/h
☐	Hunting implings	Skilling/Hunter	682,415 gp/h
☐	Hunting carnivorous chinchompas	Skilling/Hunter	462,320 gp/h
☐	Hunting chinchompas	Skilling/Hunter	173,130 gp/h

Accounts Groups

Advanced filter

# ∨	Name ∨	Total level ∨	Group ∨	Wealth ∨	Time ∨
☐	random1235@mail.com	1200	mains TS	28,1m	5h
☐	random1236@mail.com	1201	mains TS	28,2m	5h
☐	random1237@mail.com	1199	mains TS	27,7m	5h
☐	random1238@mail.com	1198	mains TS	28,5m	5h

START

Figure 5. Assigning automation scripts to operate accounts

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4   Summary

Current project simplifies operating multiple automation scripts in Old School RuneScape. Improving current command line approaches by giving intuitive and simple UI coupled with ability to group accounts and giving effective overview of accounts and progress made.

5   References

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