SYSTEM DESIGN ANALYSIS

PROJECT : GYM PROGRAM GENARATOR

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| **Num** | **Actor** | **Description** |
| 1 | Weight-lifter (login user) | track their weight, their change, have some statistics such as chart (weight, height), exercise history |
| 2 | Guest user ( who just want to do some calculator about exercise ) | input their weight, choose what exercise they want to train, system will not collect these users's data |
| 3 | System manager | manager user, manage system, respond to user's feedback, basic system diagnosis |

***1.Project Description***

1.1 . Actor description

1.2 . Use Case description

1.3 . Use Case extend

1.4 . Visualization

***1.1 . Actor description***

***1.2 . Use Case description***

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| --- | --- | --- |
| **Actor** | **Use case** | **Description** |
| weight-lifter (user already have their account) | login | they input their username/email and password into login form. The system will verify login information and return weight-lifter's information such as their weight, height, age, gender,… |
| register | new user first time visit the website, input their information such as email, username, password, gender, date of birth, height,… into registation form. The system will run the query to add new user's information inta database |
| see statistic | after a month, they want to see their result such as their weight from the very first start and their weight now, mức tạ họ đã nâng được VD: ban đầu mới nâng dc 10kg, bây giờ nâng được 50kg, biểu diễn bằng biểu đồ |
| profile | see and edit their profile |
| send feedback | user send their feedback about website through contact form in the website such as some ideas about improve system UI/UX, system functional, report system failure |
| guest user | get excercise | just simple input their weight into the form, submit and then system will generate all excersise. Guest will choose which one they want |
| Manager | manage user |  |
| respond user request and feedback | reply user's request in request form and through email |
| system diagnosis | Basic troubleshooting when system is down such as: lost connect to the server, overload, DDoS, traffic statistics, system monitoring, database query |
| manage system | gia hạn hợp đồng thuê server (nếu có), bảo trì hệ thống máy chủ (nếu tự tạo máy chủ),... |

1.3 . Use Case extend

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| --- | --- | --- |
| Use Case | Type | Description |
| login | include | verify username |
| include | verify user password |
| register | include | verify valid username (escape special characters) |
| include | verify valid email |
| see statistic | extend | adjust work day |
| extend | change weight |
| extend | See exercise history |
| send feedback |  | |
| get exercise | extend | adjust exercise ,increase weight |
| profile | extend | edit profile |
| manage user | extend | user's information |
| extend | generate statistics |
| respond user request / feedback | include | improve system base on user's feedback |
| include | review feedback/request |
| include | fix error |
| system diagnosis | include | quickly diagnosis system failure |
| include | recover service after being attack |
| include | backup data regularly |

1.4 .Visualization 



