

ANDROID APP: FITNESS WORKOUT AND EXERCISE APPLICATION DEVELOPMENT FOR FIT HUB FITNESS CENTER

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INTRODUCTION

- ANDROID MOBILE PHONE
- PHYSICAL FITNESS / WORKOUTS



BACKGROUND OF THE PROBLEM

- PANDEMIC
 - CLOSURE OF GYM
 - VIRTUAL SESSION
 - LESSER SUBSCRIPTION/CUSTOMER



OVERVIEW OF THE CURRENT STATE OF THE TECHNOLOGY

- PROPOSED AN ANDROID APPLICATION
- IN OUR EVERYDAY LIVES AND ACTIVITIES, MOBILE PHONES ARE LIMITLESS.



SPECIFIC OBJECTIVES

S.M.A.R.T OBJECTIVES

- TO CREATE A MOBILE APPLICATION TO HELP USERS MAINTAIN PHYSICAL FITNESS AND GUIDE THEM THROUGH ACCESSIBLE VIDEO CONTENT AND NUTRITIONAL RECIPES, WHICH CAN BE USED AT ALL TIMES, EVEN AT HOME, WITH MOBILE PHONES.
- TO DESIGN AN APPLICATION THAT MOTIVATES THE USER TO CONTINUE WORKOUTS WITH THE HELP OF VIDEO MATERIALS, DIETARY RECOMMENDATIONS AND TO MONITOR THEIR PROGRESS IN ACHIEVING THEIR TARGET.
- TO CREATE A MOBILE APPLICATION THAT WILL HELP THE USER ACHIEVE ITS GOAL BY UPLOADING NEW WORKOUT CONTENT AND RECOMMENDATIONS FOR DIETARY RECIPES IN THEIR DESIGNATED TRAINING.
- TO DEVELOP AN APPLICATION FOR THE USER WHO WANTS TO ACHIEVE THEIR BODY GOALS. AND BY ANALYZING AND ENSURING THE NEED THEY WANT TO IMPROVE AND SETTING THE ACTIVITY PLANNER FOR THE TRAINING WORKOUT AND TO KNOW HOW LONG IT WILL TAKE.

SCOPES OF THE STUDY

- AUTHENTICATION MODULE.
- EMAIL VÉRIFICATION (OTP) CODE MODULE.
- ASSESSMENT FORMS MODULE.
- ASSESSMENT RESULT MODULE.
- HOME PAGE MODULE.
- COACHES OR TRAINERS MODULE.
- CUSTOMER USER ACCOUNT MODULE.
- USER ACTIVITY MODULE.
- NUTRITION AND DIET RECIPES MODULE.
- MEMBER MODULE.
- LATEST/UPDATES MODULE.
- BACK-END CLOUD DATABASE MODULE.

LIMITATION OF THE STUDY

- FOR ANDROID USERS ONLY



LITERATURE REVIEW



FOREIGN LITERATURE

- ERICK VAN MECHELEN (2017).
 - ✓ SKIMBLE
- SNEHA BOKIL (2017).
 - ✓ RUNTASTIC
- TIM JEWELL (2020).
 - ✓ FITNESS BODY



LOCAL LITERATURE

- HALEY ANDREWS, NATHAN FORD, JOHN HAAS, EVAN SAFFORD (2015).
 - ✓ SAM FITNESS: AN ANDROID WELLNESS APPLICATION
- SHYAMLI THAKUR (2020).
 - ✓ JEFIT
- SABINA SULTANA (2020).
 - ✓ FITNESS & BODYBUILDING



SYNTHESIS

- IN THIS CHAPTER, THE RESEARCHERS CONDUCT SOME RESEARCH ACCORDING TO THIS STUDY ENTITLED “ANDROID APP: FITNESS WORKOUTS AND EXERCISE APPLICATION DEVELOPMENT FOR FIT HUB FITNESS CENTER”.
- THIS STUDY WAS CARRIED OUT TO DISCUSS THEIR USERS' ABILITY TO COPE AND CONTINUE THEIR PHYSICAL HEALTH AND WORKOUT EXERCISE.

OVERVIEW OF THE PROJECT

- THE OBJECTIVES OF THE STUDY ARE TO DEVELOP, BUILD, AND IMPLEMENT A FITNESS WORKOUT AND EXERCISE MOBILE ANDROID APPLICATION THAT HELPS PEOPLE TO MAINTAIN A HEALTHIER LIFESTYLE WHILE USING MOBILE SMARTPHONES AT HOME.

SYSTEM DESIGN SPECIFICATION



HARDWARE

- DESKTOP/S OR (LAPTOPS)
- LOCAL AREA NETWORK (LAN) WITH AT LEAST 3GB HARD DISK SPACE.
- CORE2DUO 1.6 GHz OR FASTER PROCESSOR.
- DIRECTX9 CAPABLE VIDEO CARD, MINIMUM OF 2GB RAM
- MONITOR, MOUSE AND CLASSIC KEYBOARD.
- INCLUDING THE ANDROID PHONE OR TABLET MINIMUM OF 32GB INTERNAL MEMORY, MINIMUM OF 2,800MAH BATTERY, BUILT IN SPEAKER, SIM CARD DATA CONNECTION AND Wi-Fi ROUTER CONNECTION.

SOFTWARE

- ANDROID OS
- GOOGLE PLAY STORE
- ANDROID STUDIO
- FLUTTER UI
- FIRE BASE

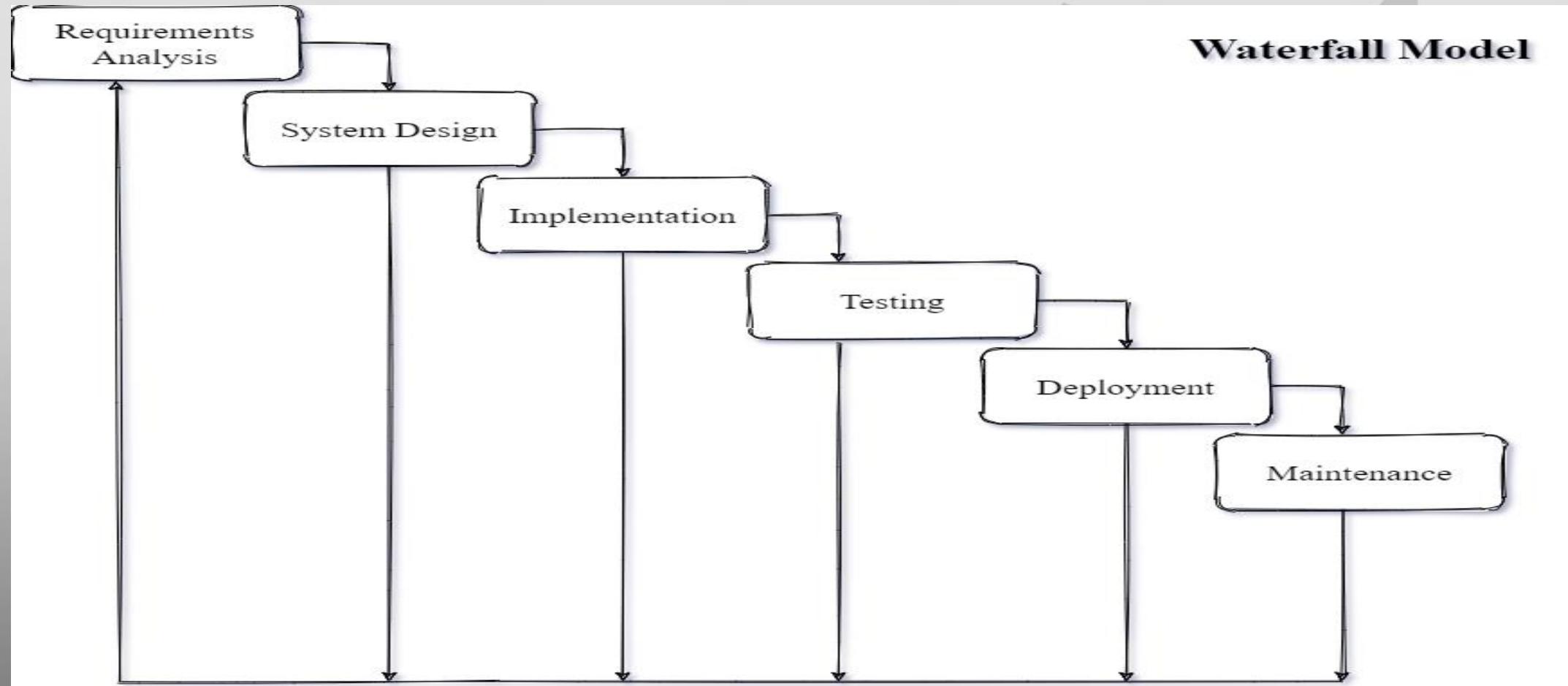


METHODOLOGY



SDLC DIAGRAM

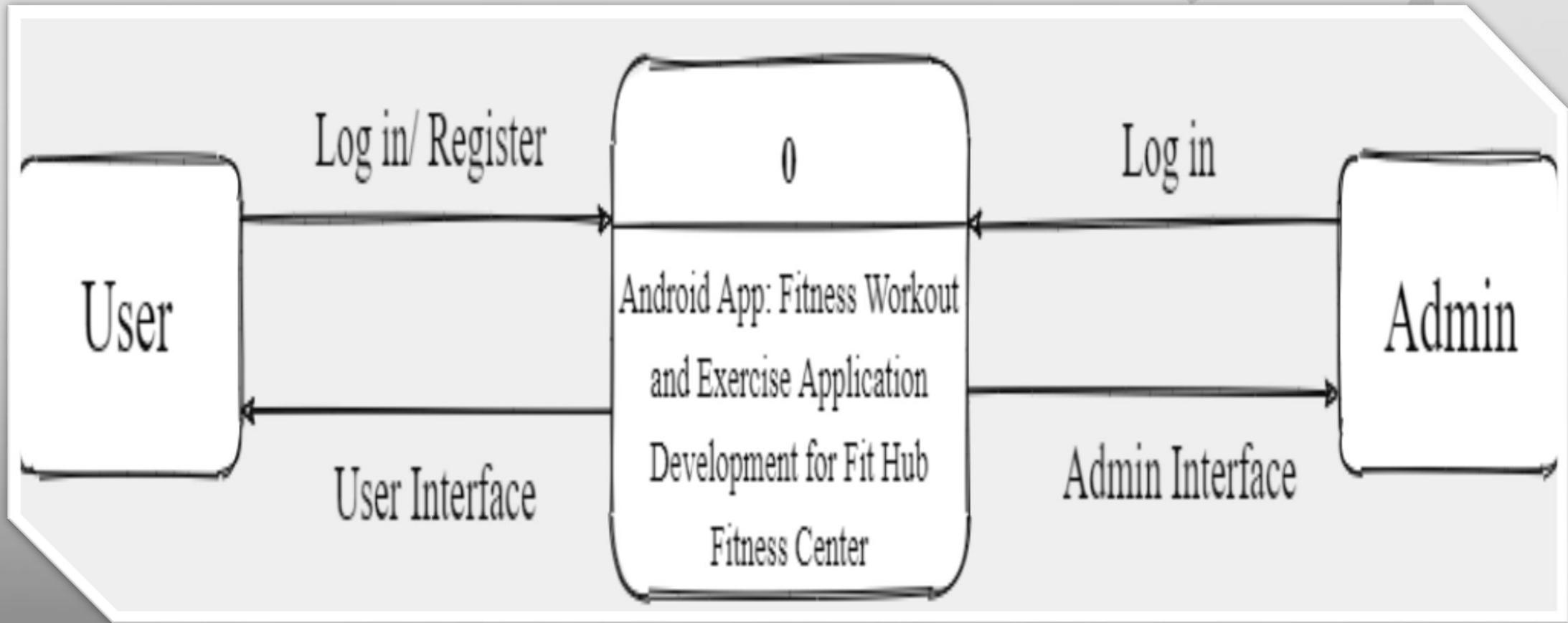
EDUCATION



THE PHASES IN WATERFALL MODEL

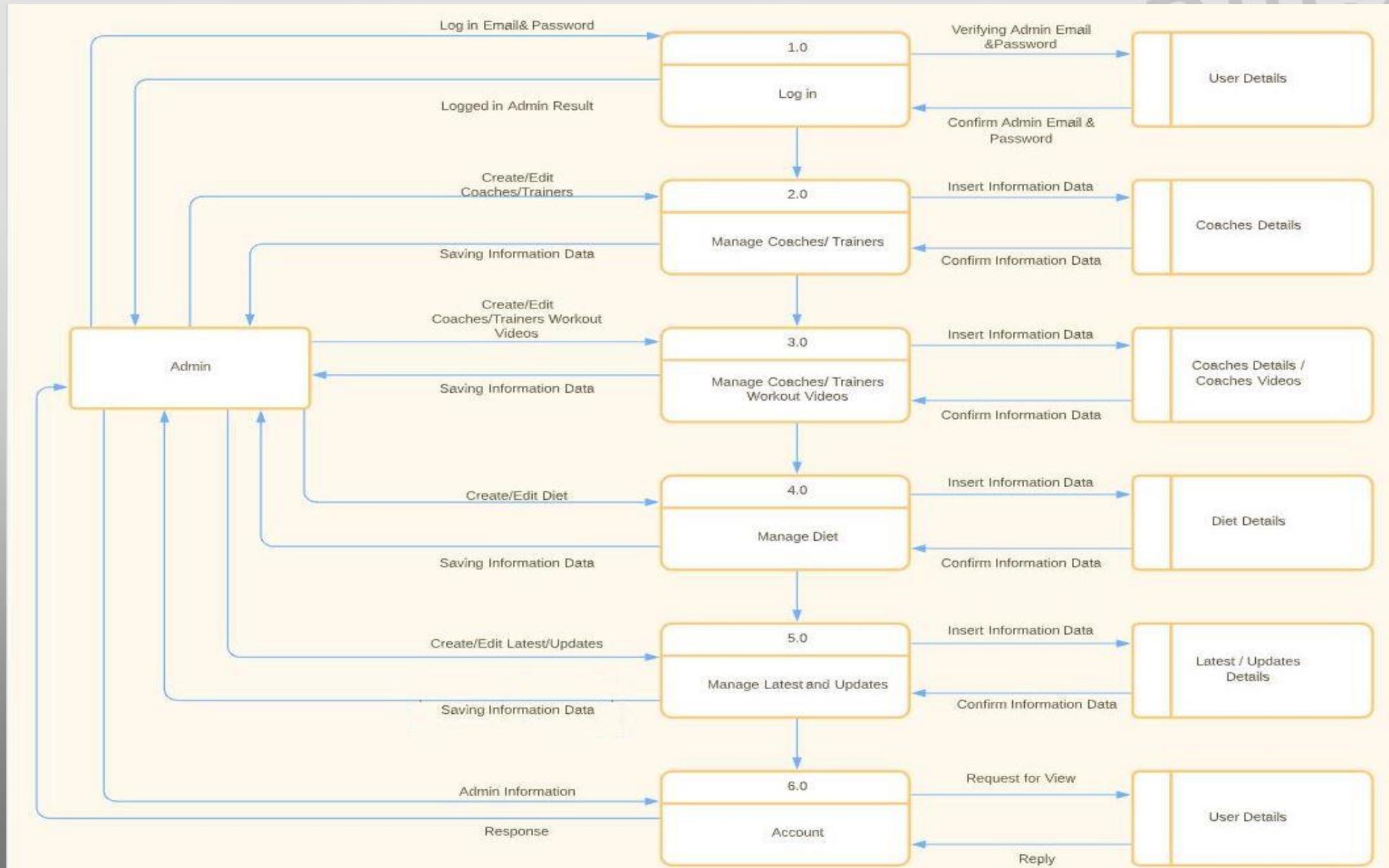
- THE REQUIREMENT ANALYSIS PHASE
- HELPS DEVELOPERS DEVELOP A BETTER SYSTEM THAT PROVIDES IDEAS FOR THE NEEDS OF CLIENT.
- THE SYSTEM DESIGN PHASE HELPS THE DEVELOPERS TO BUILD WHAT SYSTEM BASED ON THE INFORMATION THAT COMES UP TO THE CLIENT.
- THE IMPLEMENTATION PHASE HELPS THE DEVELOPER TO SPECIFY THE PROJECT REQUIREMENTS.
- THE TESTING PHASE ALLOWS THE DEVELOPER TO SEE IF THE SYSTEM HAS ERRORS AND IF THE SYSTEM IS FLOWING AND THE CLIENT IS NEEDED.
- THE DEPLOYMENT PHASE ALLOWS THE DEVELOPER TO KNOW WHETHER THEIR SYSTEM IS READY TO BE USED BY THE CLIENT FOR LAUNCH.
- THE MAINTENANCE PHASE IS WHERE THE DEVELOPERS NEED TO MONITOR AND MAINTAIN THE FUNCTIONALITIES OF THEIR SYSTEM TO ENSURE ITS EFFICIENCY.

CONTEXT FLOW DIAGRAM

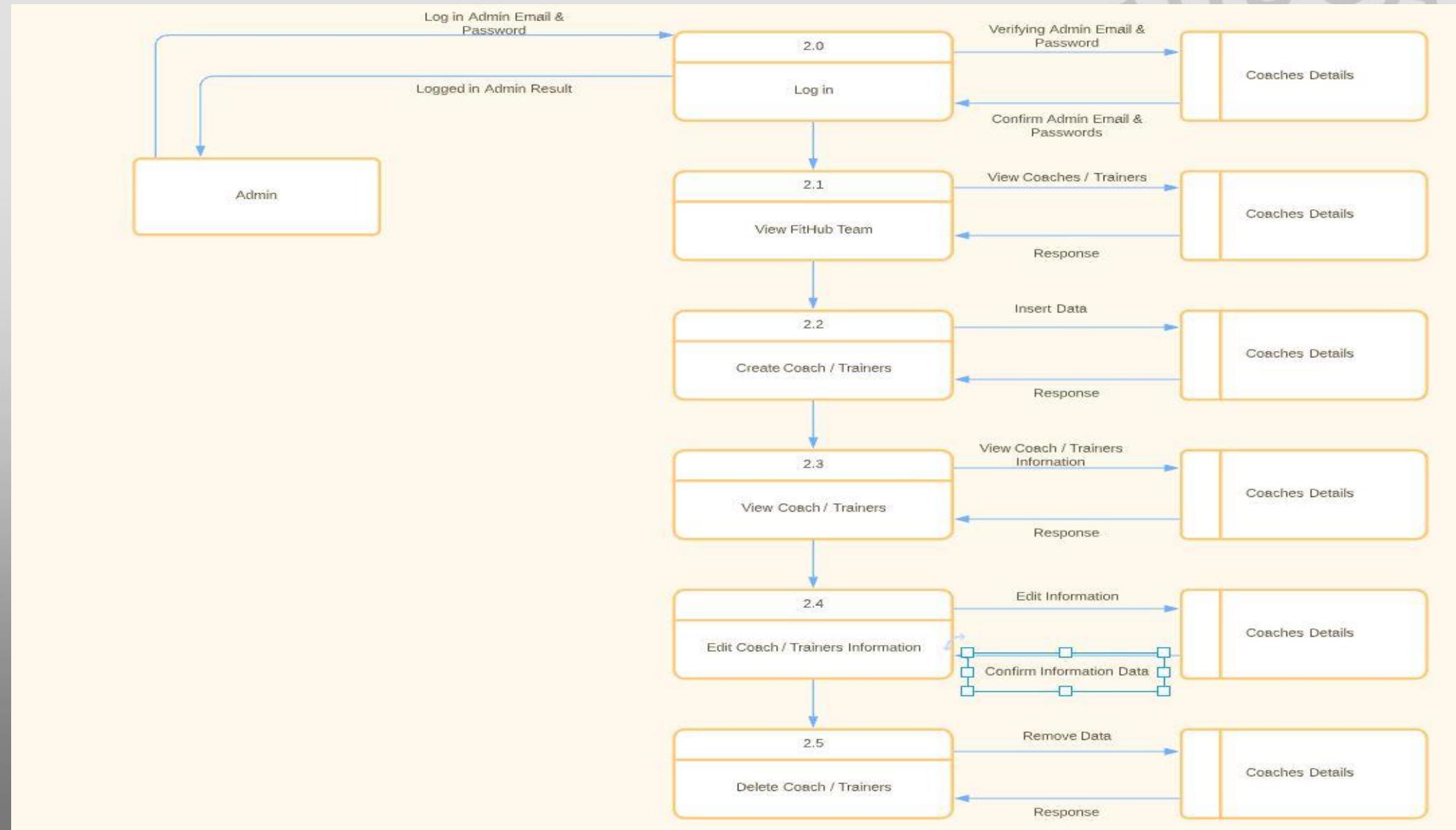


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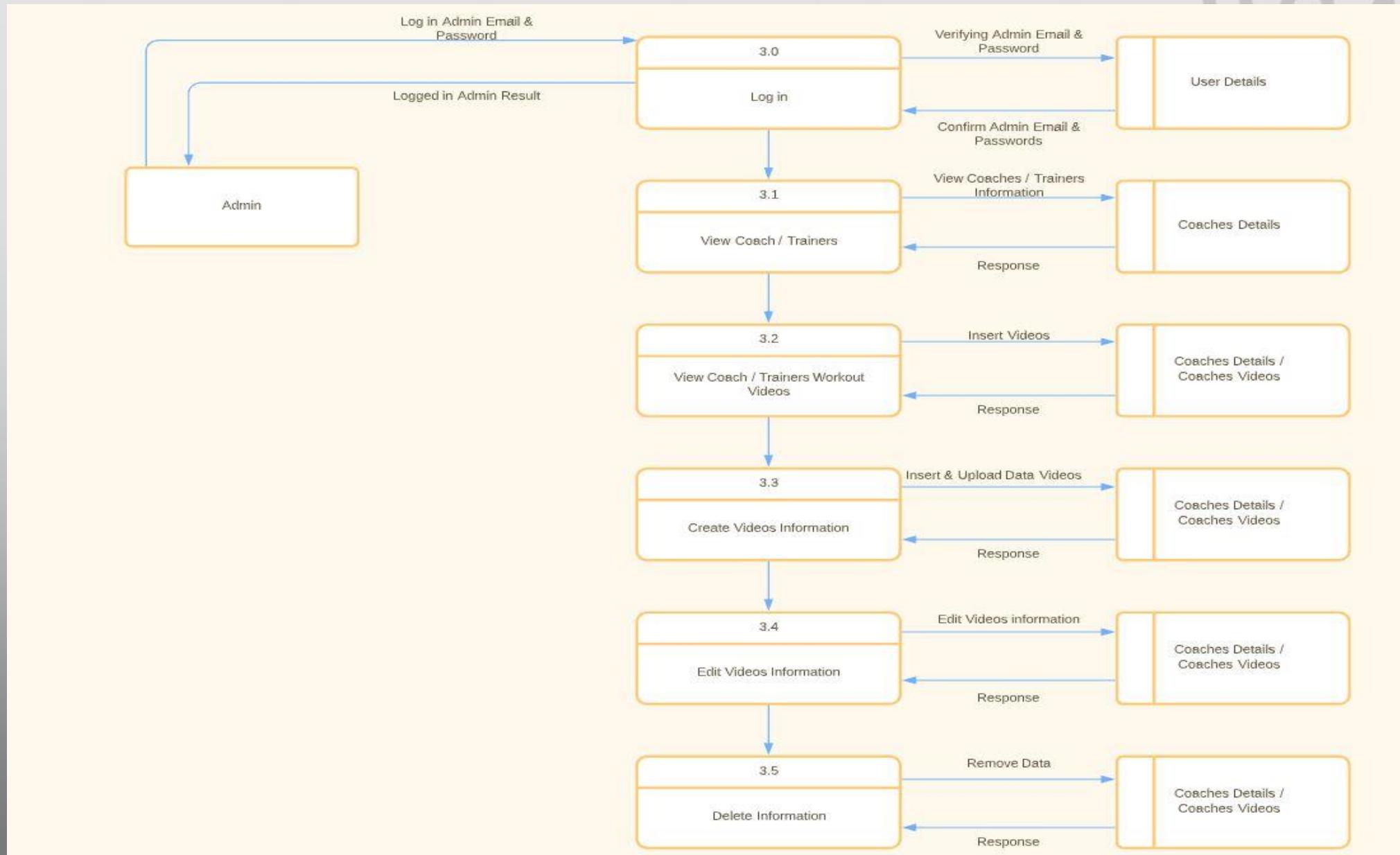
DATA FLOW DIAGRAM 1ST LEVEL OF ANDROID APP: FITNESS WORKOUT AND EXERCISE APPLICATION DEVELOPMENT (ADMIN)



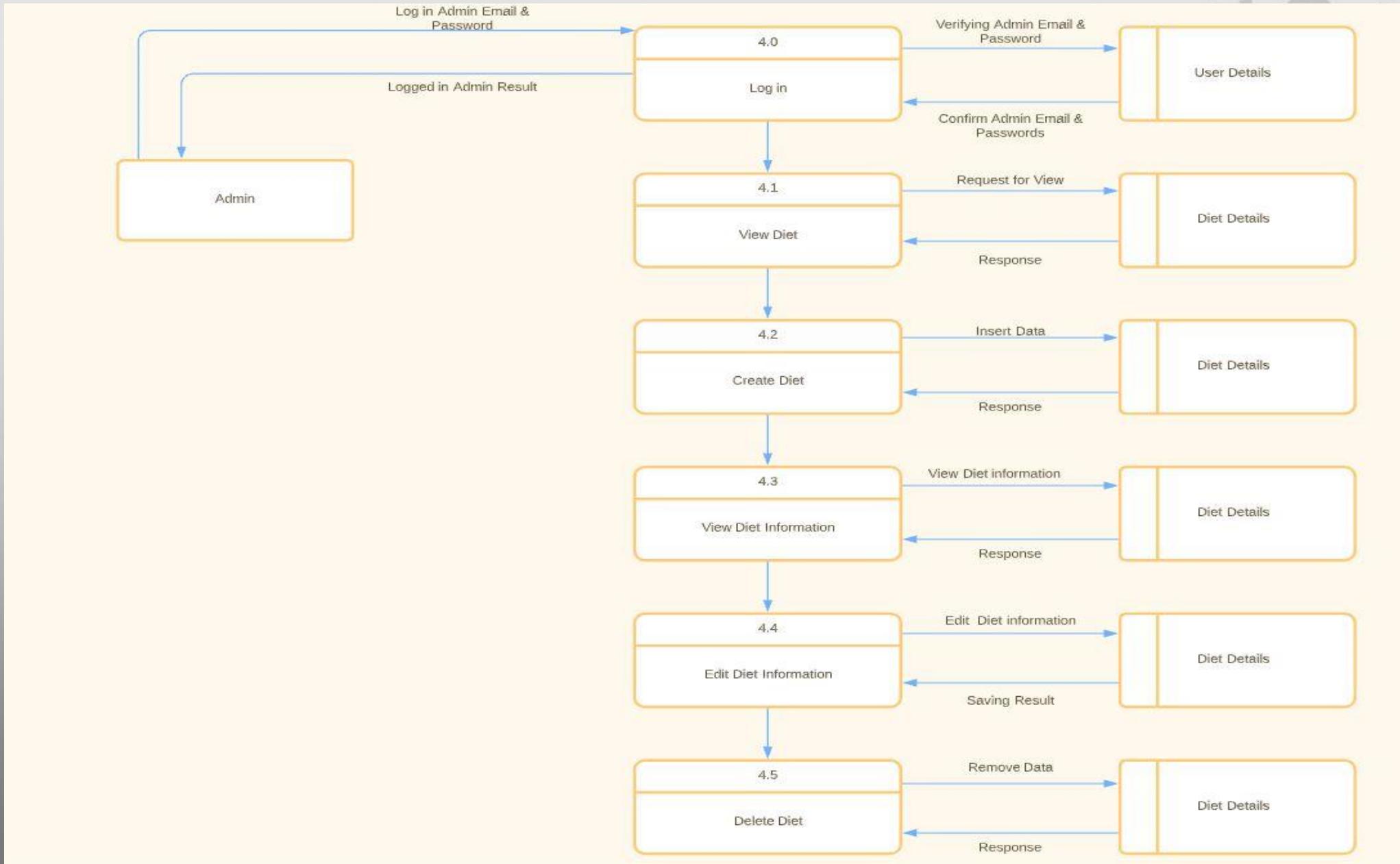
DATA FLOW DIAGRAM 2ND LEVEL OF ANDROID APP: FITNESS WORKOUT AND EXERCISE APPLICATION DEVELOPMENT (ADMIN)



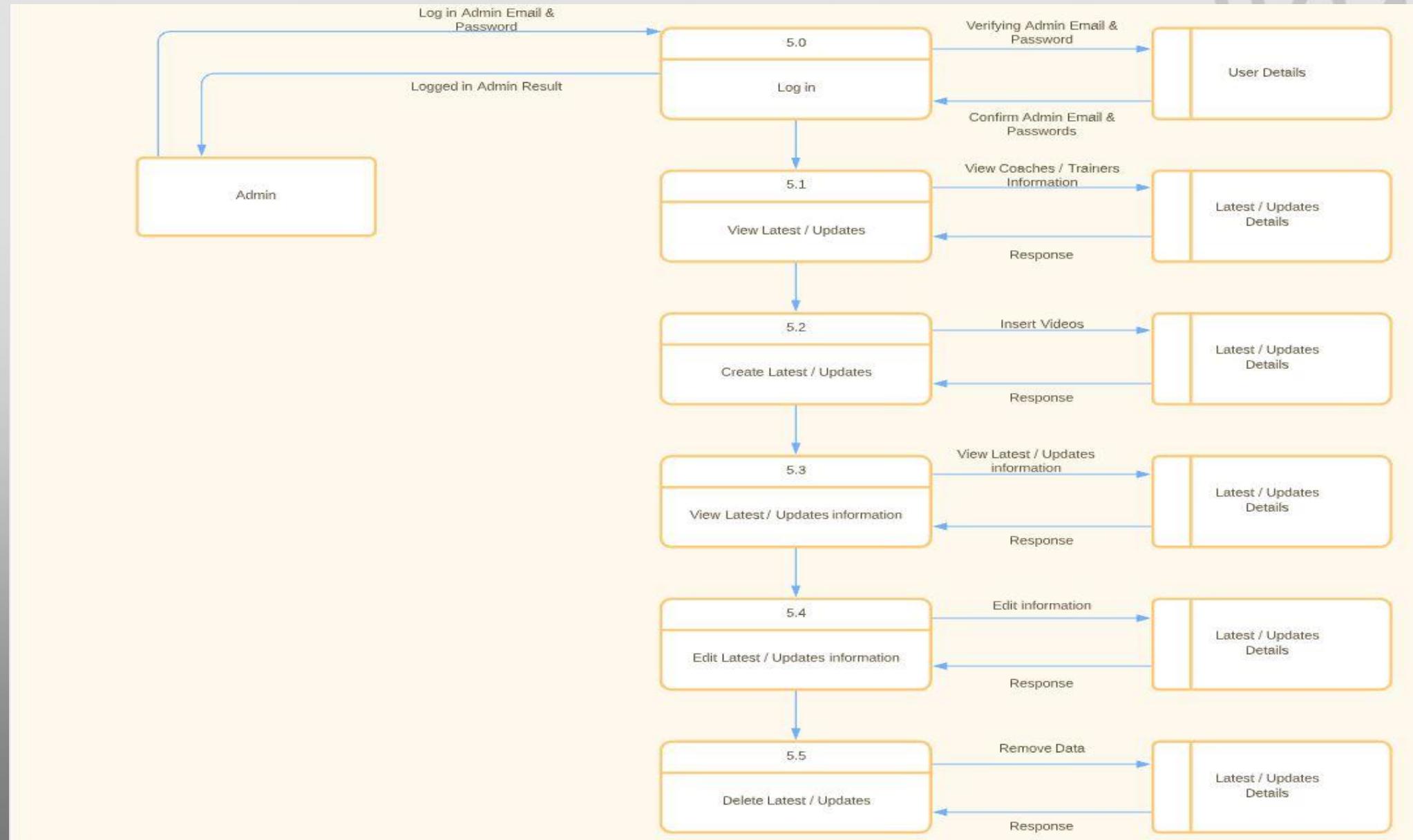
DATA FLOW DIAGRAM 2ND LEVEL ADMIN (3.0)



DATA FLOW DIAGRAM 2ND LEVEL ADMIN (4.0)



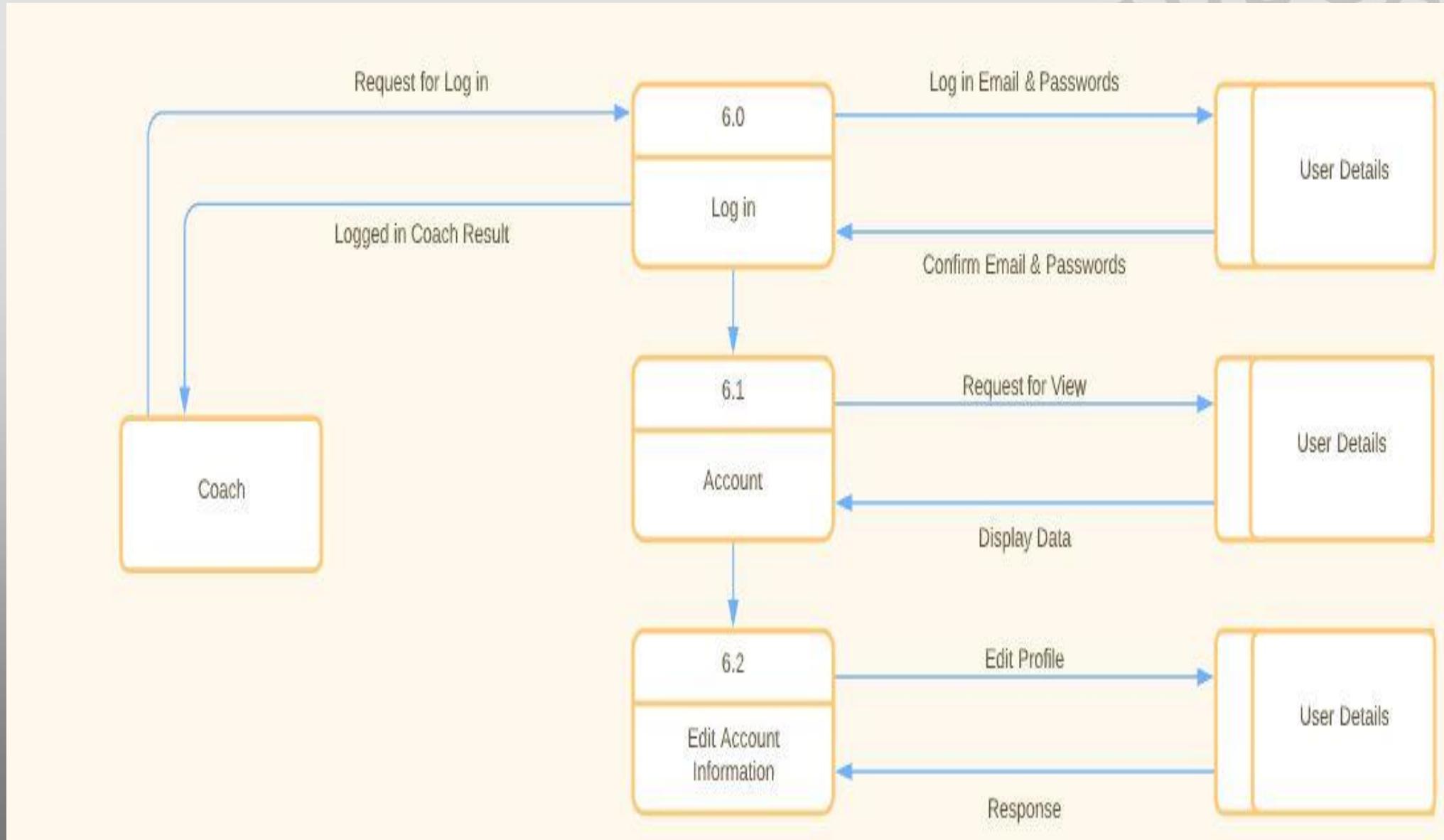
DATA FLOW DIAGRAM 2ND LEVEL ADMIN (5.0)



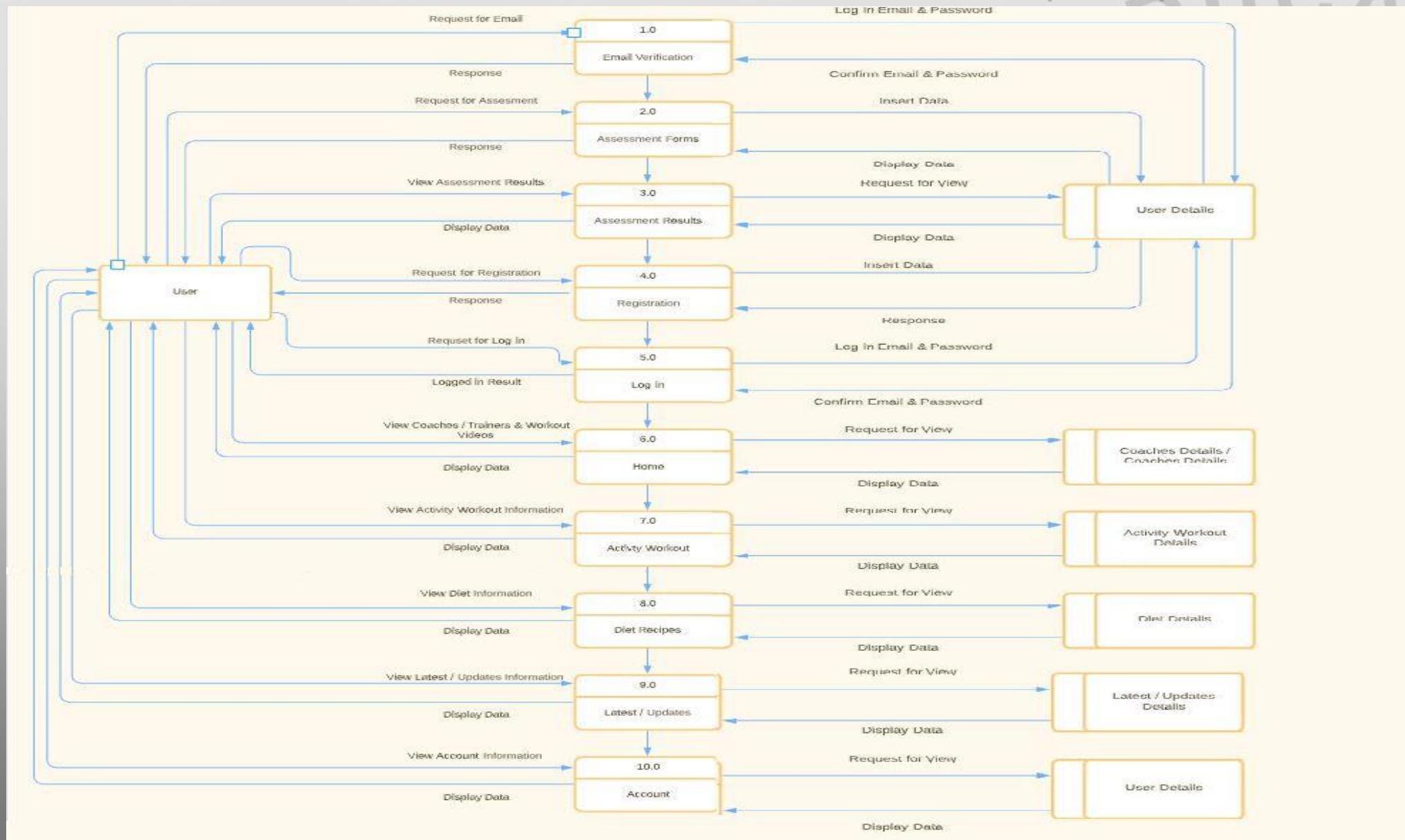
DATA FLOW DIAGRAM 1ST LEVEL OF FITNESS WORKOUT AND EXERCISE ANDROID APPLICATION DEVELOPMENT (COACH)



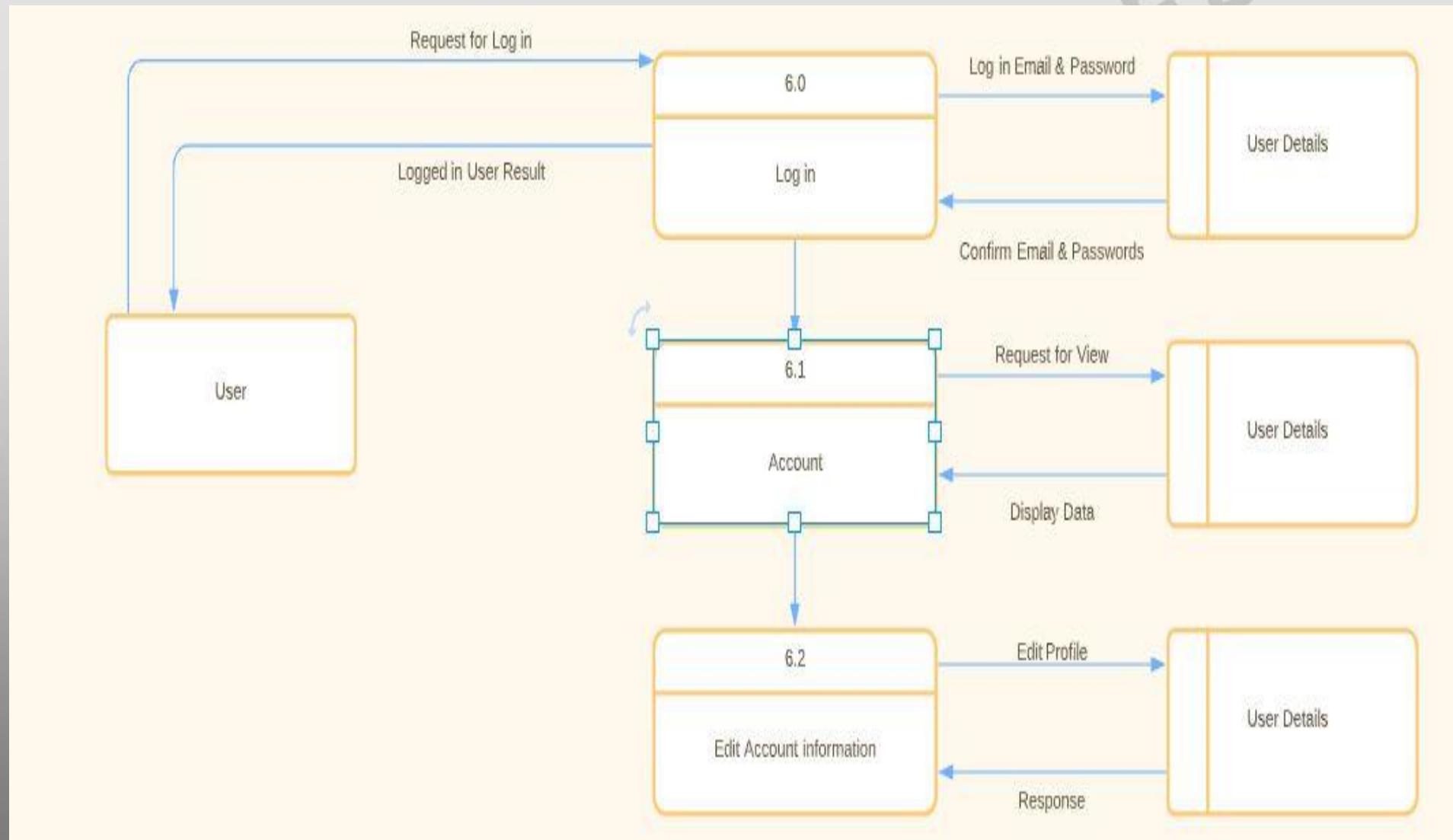
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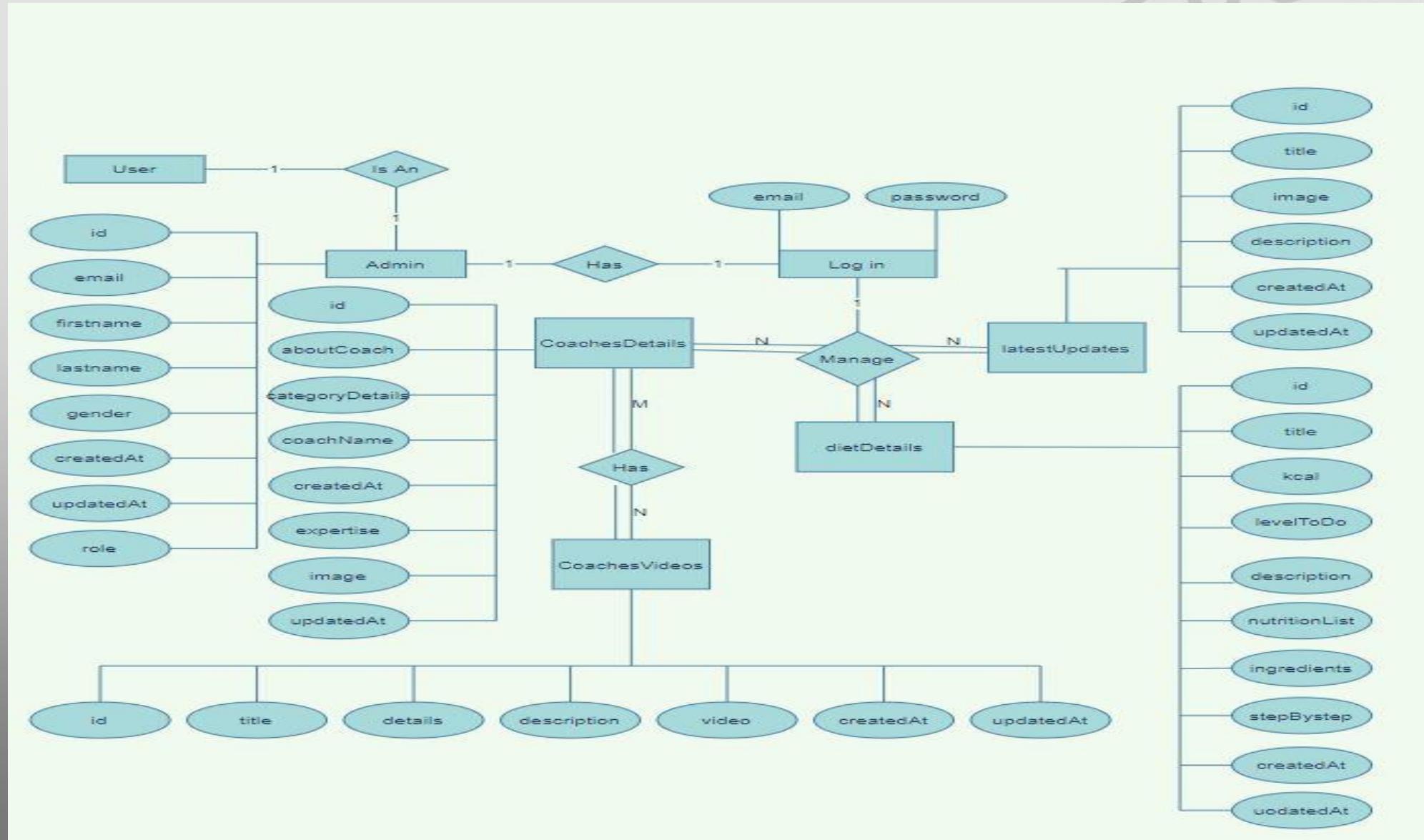
DATA FLOW DIAGRAM 1ST LEVEL OF FITNESS WORKOUT AND EXERCISE ANDROID APPLICATION DEVELOPMENT (USER)



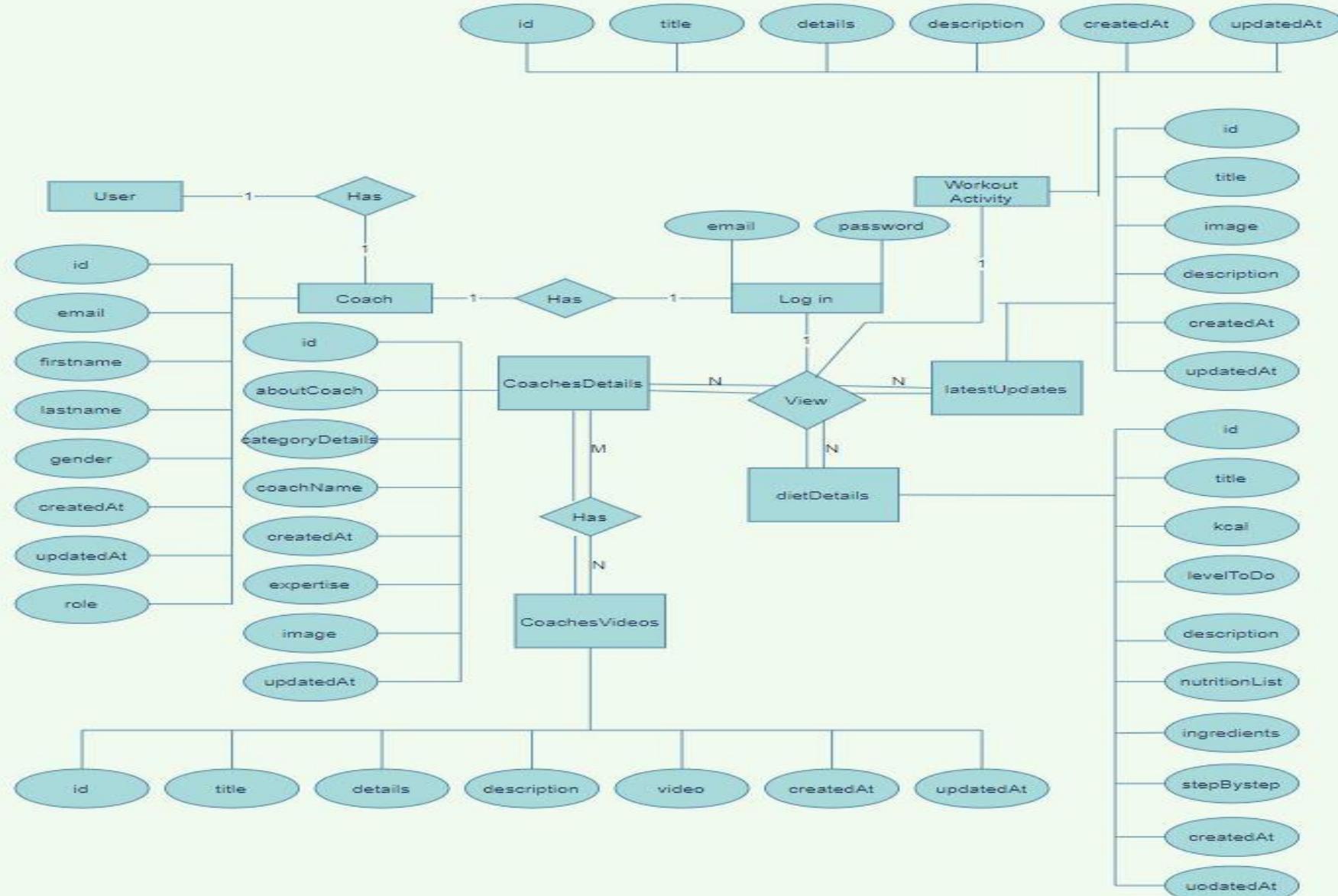
DATA FLOW DIAGRAM 2ND LEVEL OF ANDROID APP: FITNESS WORKOUT AND EXERCISE APPLICATION DEVELOPMENT (USER)



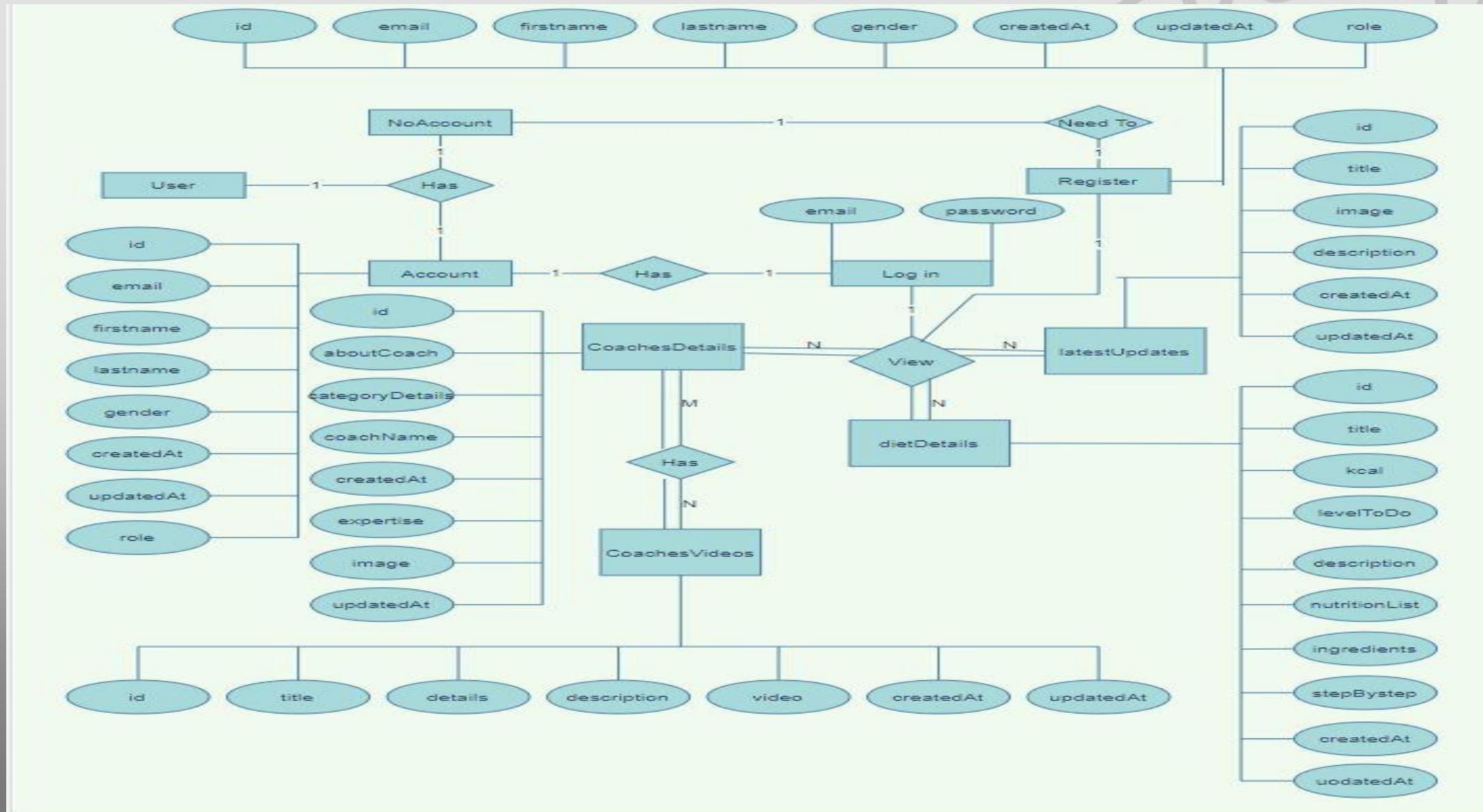
ENTITY RELATIONSHIP DIAGRAM OF ANDROID APP: FITNESS WORKOUT AND EXERCISE APPLICATION DEVELOPMENT (ADMIN)



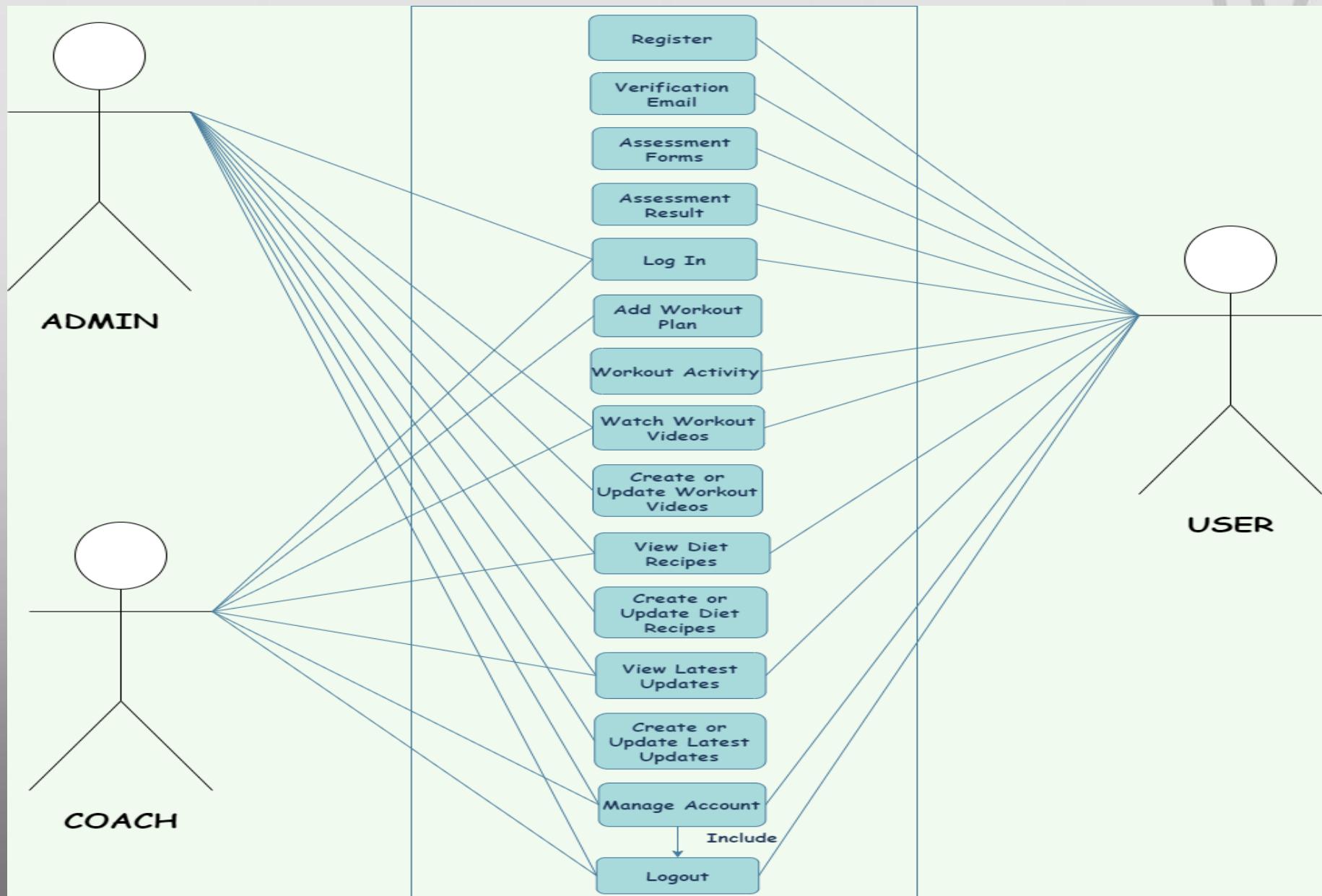
ENTITY RELATIONSHIP DIAGRAM OF ANDROID APP: FITNESS WORKOUT AND EXERCISE APPLICATION DEVELOPMENT (COACH)



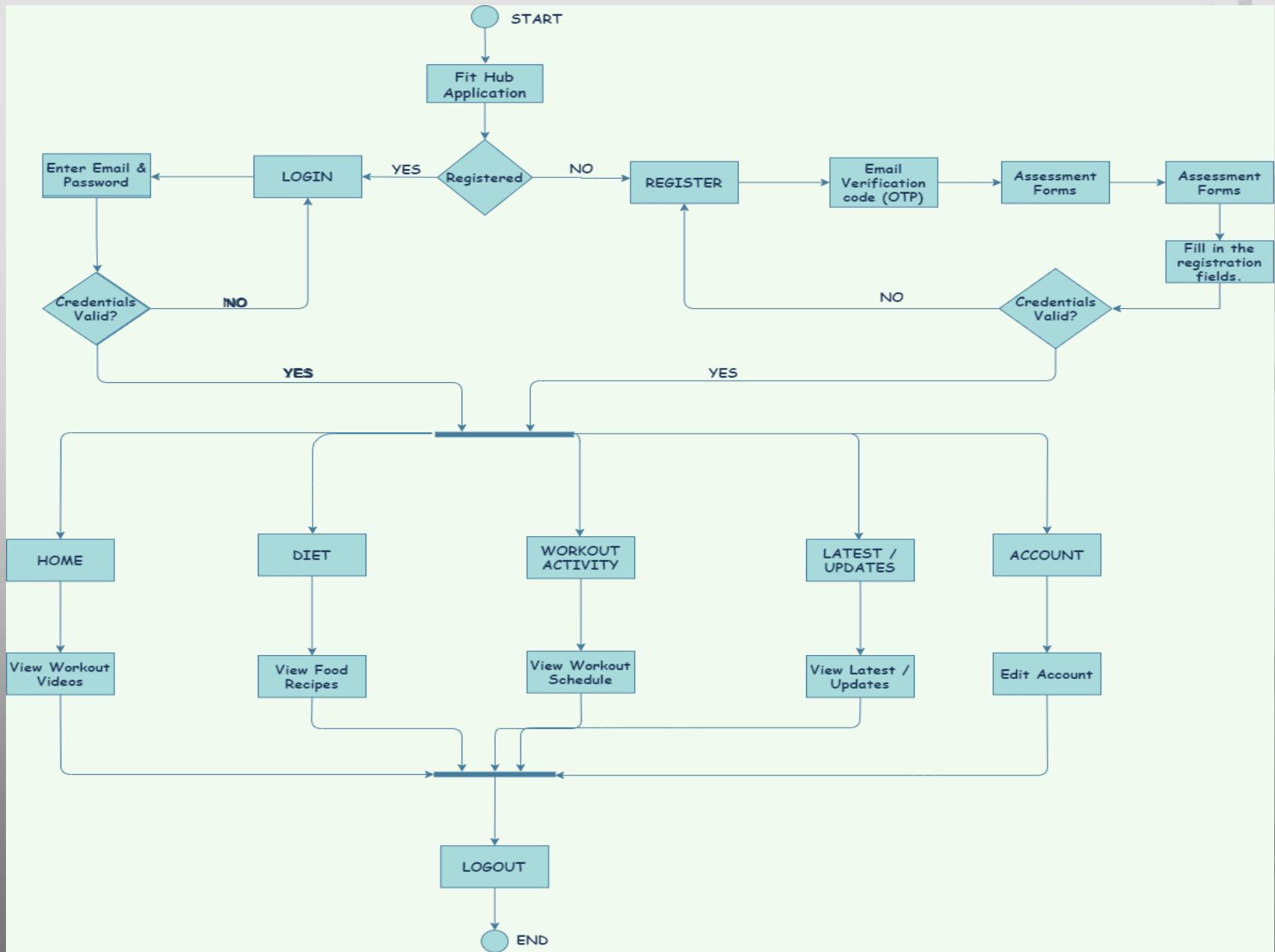
ENTITY RELATIONSHIP DIAGRAM OF ANDROID APP: FITNESS WORKOUT AND EXERCISE APPLICATION DEVELOPMENT (USER)



USE CASE DIAGRAM



ACTIVITY DIAGRAM



RESULTS AND DISCUSSIONS



RESULTS

- MOST RESPONDENTS HAVE THEIR OWN ANDROID PHONES.
- MOST RESPONDENTS USE THEIR MOBILE PHONES FOR WATCHING EXERCISES AND WORKOUTS.
- MOST RESPONDENTS ARE LIKE TO IMPROVE THEIR BODY GOALS BY USING MOBILE PHONE.
- HALF OF THE RESPONDENTS AGREED TO STAY AT HOME WHILE HAVING THEIR WORKOUTS.
- 17 YEARS OLD ABOVE ARE AWARE IN WORKOUTS AND EXERCISES THROUGH MOBILE PHONES.

DISCUSSIONS

- THE RESEARCHERS OBSERVED THAT THE PEOPLE ARE HAVING THEIR HARD TIMES OF THEIR WORKOUT SESSIONS WHICH IS THE REASON WHY THE RESEARCHERS AND DEVELOPERS CAME UP WITH THE ANDROID APPLICATION FITNESS WORKOUT AND EXERCISE.



CONCLUSIONS AND RECOMMENDATIONS



- THE PROJECT IS CONSISTED OF A STUDY THAT INCLUDES ALL THE OBSERVATION AND EVALUATION OF THE SYSTEM THAT THE CLIENT USES FOR THEIR BUSINESS.
- THE FINDINGS IN THE EXISTING APPLICATION OF THE FITNESS GYM LED THE DEVELOPERS TO PROPOSE AN APPLICATION SUITABLE FOR THE WORKING ENVIRONMENT OF THE COACHES AND TRAINERS.
- FOR FUTURE ENHANCEMENT, THE ANDROID APP CAN HAVE AN UPGRADE LIKE ADDING MORE FEATURES SUCH AS PAYMENT FOR SUBSCRIPTION AND PROGRESS TRACKER.

THANK YOU ☺

STAY SAFE AND GOD BLESS

