
Exam Grades Management System

TEST REPORT

Version <2.0> 10 April 2018

Exam Grades Management System

VERSION HISTORY

Version #	Implemented By	Revision Date	Brief Description
1.0	Sohail Khan (B16CS036) Aniket Parate(B16CS023)	02-04-2018	<i>The following document contains unit and system testing for the grades management system.</i>
2.0	Sanchit Taliyan(B16CS031) Uneet Meena(B16CS037)	10-04-2018	

3.1 Utility Class 3.1.1 void 3.1.2 void 3.1.3 void 3.1.4 void

3.2 User Class 3.2.1 void 3.2.2 void 3.2.3 void 3.2.4 void 3.2.5 void 3.2.6 void

start() user_register() user_login() choices()

view_profile() modify_profile() view_stats()

view_courses() modify_grades() update_marks()

3.2.7 void 3.3 Courses Class

Table of Contents

1.0 INTRODUCTION

1.1 Purpose

2.0 TEST PLAN

3.0 DETAILS OF UNIT TESTING

select_courses()

3.3.1 void show_user_courses()

3.3.2 void get_user_grade(const string &cname) 3.3.3

void update_marks(int marks)

3.4 Statistics Class

3.4.1 void grades_criteria(const string &coursename)

3.4.2 int get_average_marks(const string &coursename) 3.4.3 int get_mean_deviation(const string &coursename)

4.0 DETAILS OF SYSTEM TESTING

1.0 INTRODUCTION

1.1

2.0

PURPOSE

This *Exam Grades Management System Unit and System Test Report* provides a summary of the results of test performed as outlined within this document.

TEST PLAN

The testing of the system will proceed in the following manner.

- Static Unit Testing:
In this part the code will be checked and reviewed if there are any compilation errors in the code. Examination over all possible situation that may arise during will be done.
Here the following techniques will be used: 1. Inspection
2. Walkthrough
- Dynamic Unit Testing:
Here the code will be executed in units which would be functions
related to a specific unit.

Two types of testing will be done in this part:

1. Control Flow Testing:
Here appropriately few paths will be selected so that each predicate expression is executed and checked whether it produces the desired outcome.
2. Data Flow Testing:
The aim of this part is to check whether there is any kind of data flow anomaly associated with the unit being checked. All the variables associated with the unit being tested are checked to be free of any kind of data flow anomaly.

System Testing:

When all the units of the code are checked statically and dynamically

they are integrated into one complete system and the system is checked as a whole. The behavior of the system is checked against the expected behavior.

Exam Grades Management System

Exam Grades Management System

3.0 DETAILS OF UNIT TESTING

3.1 UTILITY CLASS

3.1.1 VOID START()

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.1.1.1	1' / char	Function for register is called	Function for register is called	PASS	Yes
3.1.1.2	2' / char	Function for login is called	Function for login is called	PASS	Yes
3.1.1.3	3' / char	Exits the Program	Exits the Program	PASS	Yes
3.1.1.4	Any character other than the above	Displays "Invalid Choice"	Displays "Invalid Choice"	PASS	Yes

3.1.1.5	String	Displays “Invalid Choice”	Displays “Invalid Choice”	PASS	Yes
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3.1.2 VOID USER_REGISTER()

Sr. No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.1.2.1	String / username	Given string should be accepted as the username of the new user to be registered	Given string is accepted as the username of the new user to be registered	PASS	Yes
3.1.2.2	String / userid	The system should automatically generate the userid of the new user	The system should automatic ally generate the userid of the new user	PASS	Yes
3.1.2.3	String / userid	No two users should have same	No two users should have same	PASS	Yes

		userid	userid		Yes
3.1.2.4	String / mail	Accepts the desired email of the new user	Accepts the desired email of the new user	PASS	Yes
3.1.2.5	String / mail	Email should be accepted only if it is in a valid email format	Email should be accepted only if it is in a valid email format	PASS	
3.1.2.6	1' / char	User type as student is selected	User type as student is selected	PASS	
3.1.2.7	2' / char	User type as Faculty is selected	User type as Faculty is selected	PASS	
3.1.2.8	Any char other than '1' and '2'	Message as invalid choice is displayed	Message as invalid choice is displayed	PASS	
3.1.2.9	String / pass,c_pass	Function accepts the desired string as password only when pass and c_pass matches	Function accepts the desired string as password only when pass and c_pass matches	PASS	

3.1.3 VOID USER_LOGIN()

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.1.3.1	String, string / username , password	User is logged in if the user with given username and password is registered in the system	User is logged in if the user with given username and password is registered in the system	PASS	Yes
3.1.3.2	String, string / username , password	“Either username or password is incorrect” is displayed if user does not exist	“Either username or password is incorrect” is displayed if user does not exist	PASS	Yes

3.1.4 VOID CHOICES()

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
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3.1.4.1	1' / c	Function for view profile is executed	Function for view profile is executed	PASS	Yes
3.1.4.2	2' / c	Function for modify profile is executed	Function for modify profile is executed	PASS	Yes
3.1.4.3	3' / c	Function for adding courses is executed	Function for adding courses is executed	PASS	Yes
3.1.4.4	4' / c	Function for view courses is executed	Function for view courses is executed	PASS	Yes
3.1.4.5	5' /c	Function for view statistics is executed	Function for view statistics is executed	PASS	Yes
3.1.4.6	6' / c	Student : user is logged out Faculty : function for update marks is executed	Student : user is logged out Faculty : function for update marks is executed	PASS	Yes
3.1.4.7	7' / c	Function for modify grades is executed	Function for modify grades is executed	PASS	Yes

3.1.4.8	8' / c	Faculty user is logged out	Faculty user is logged out	PASS	Yes
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3.2 USER CLASS

3.2.1 VOID VIEW_PROFILE()

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.2.1.1	Nil	Details of user are visible	Details of user are visible	PASS	yes

3.2.2 VOID MODIFY_PROFILE()

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.2.2.1	String / userid	Userid of the user should be changed	Userid of the user should be changed	PASS	Yes
3.2.2.2	String / email	Email linked with user is changed	Email linked with user is changed	PASS	Yes

3.2.2.3	String / userid	Validity of the userid should be done	Validity of the userid should be done	PASS	Yes
3.2.2.4	String / mail	Validity of the mail should be checked	Validity of the mail should be checked	PASS	Yes

3.2.3 VOID VIEW_STATS()

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.2.1.1	Nil	Details of user are visible	Details of user are visible	PASS	Yes

3.2.4 VOID VIEW_COURSES ()

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification

3.2.4.1	Nil	Student and faculty : Courses registered by user is displayed	Student and Faculty : Courses registered by user is displayed	PASS	Yes
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3.2.5 VOID UPDATE_MARKS()

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.2.5.1	Any int between 1-6 / c	Course related to the respective integer is selected	Course related to the respective integer is selected	PASS	Yes
3.2.5.2	Integer other than 1-6 / c	Displays Message as Invalid Result	Displays Message as Invalid Result	PASS	Yes
3.2.5.3	String / username	Select the user with the given string as username	Select the user with the given string as username	PASS	Yes
3.2.5.4	String / username	Displays message that the user is not	Displays message that the user is not	PASS	Yes

		registered if this case prevails	registered if this case prevails	
3.2.5.5	Integer / marks	Updates the total marks for the selected user	Updates the total marks for the selected user	PASS
3.2.5.6	Integer / marks	Updates marks in a specified range	Updates marks in a specified range	PASS

3.2.6 VOID MODIFY_GRADES()

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.2.6.1	Integer from 1-5 / c	Course for which grade is to be modified is selected	Course for which grade is to be modified is selected	PASS	Yes
3.2.6.2	Integer other than 1-5 / c	Message is displayed as invalid selection	Message is displayed as invalid selection	PASS	Yes
3.2.6.3	String / username	Student with the given string as username is selected	Student with the given string as username is selected	PASS	Yes

3.2.6.4	String / Username	Displays “student does not exists” if the given username is not registered with the system	Displays “student does not exists” if the given username is not registered with the system	PASS	Yes
3.2.6.5	char / grade	Updates the grade of the selected student	Updates the grade of the selected student	PASS	Yes
3.2.6.6	Char / grade	Takes input only from ‘A’ , ‘B’ , ‘C’ , ‘D’ and ‘F’	Takes input only from ‘A’ , ‘B’ , ‘C’ , ‘D’ and ‘F’	PASS	Yes

3.2.7 VOID SELECT_COURSES ()

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.2.7.1	Any int between 1-6 / c	Course related to the respective integer is added	Course related to the respective integer is added	PASS	Yes

3.2.7.1	Any int between 1-6 / c	Does not adds the course if it is already added	Does not adds the course if it is already added	PASS	Yes
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3.3 COURSES CLASS

3.3.1 VOID SHOW_USER_COURSES()

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.3.1.1	Nil	Shows courses which in which user has registered	Shows courses which in which user has registered	PASS	Yes

3.3.2 VOID GET_COURSE_GRADE(CONST STRING &CNAME)

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.3.2.1	String/ cname	Shows grades of the courses selected	Shows grades of the courses selected	PASS	Yes

3.3.2.2	String / cname	Displays “Invalid Course” when valid course is not entered	Displays “Invalid Course” when valid course is not entered	PASS	Yes
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3.3.3 VOID UPDATE_MARKS(INT MARKS)

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.3.3.1	integer / marks	Set total marks as the integer given to function	Set total marks as the integer given to function	PASS	Yes
3.3.3.2	Integer/ marks	Negative marks should not be accepted	Negative marks should not be accepted	PASS	Yes
3.3.2.2	String / cname	Displays “Invalid Course” when valid course is not entered	Displays “Invalid Course” when valid course is not entered	PASS	Yes

3.4 STATISTICS CLASS

3.4.1 VOID GRADES_ CRITERIA(CONST STRING &COURSENAME)

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.4.1.1	String / course name	Calculate grades on the basis of the set criteria	Calculate grades on the basis of the set criteria	PASS	Yes
3.4.3.2	String / course name	Displays “invalid course” if the string given as course is not registered	Displays “invalid course” if the string given as course is not registered	PASS	Yes

3.4.2 INT GET_AVERAGE_MARKS(CONST STRING &COURSENAME)

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.4.2.1	String / course name	Calculate average marks of the course given	Calculate average marks of the course given	PASS	Yes

3.4.3.2	String / coursename	Displays “invalid course” if the string given as course is not registered	Displays “invalid course” if the string given as course is not registered	PASS	Yes
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3.4.3 INT GET_MEAN_DEVIATION(CONST STRING &COURSENAME)

Test No.	INPUT / LOCAL VARIABLE	Intended Result	Actual Result	Pass/Fail	Verification
3.4.3.1	String / coursename	Returns mean deviation of the marks of the course given	Returns mean deviation of the marks of the course given	PASS	Yes
3.4.3.2	String / coursename	Displays “invalid course” if the string given as course is not registered	Displays “invalid course” if the string given as course is not registered	PASS	Yes

DETAILS OF SYSTEM TESTING

Step	TEST STEP/ INPUT	Intended Result	Actual Result	Pass/Fail	Verification
1	Register	New user gets registered	New user gets registered	PASS	Yes
2	Login	User gets login	User gets login	PASS	Yes
3	Login -> View profile	User can view its details	User can view its details	PASS	Yes
4	Login -> Modify profile	User can modify profile	User can modify profile	PASS	Yes

5	Login-> view courses	User can view courses which he/she is studying/teaching	User can view courses which he/she is studying/teaching	PASS	Yes
6	Login as Student -> View Stats	Student can view the marks and grades of each subject	Student can view the marks and grades of each subject	PASS	Yes
7	Login as Faculty -> View Stats	Faculty can view grades of any student associated with any of the courses it is teaching	Faculty can view grades of any student associated with any of the courses it is teaching	PASS	Yes

	8 Login as Faculty - > update marks	Faculty can update marks of any student of any course it is teaching	Faculty can update marks of any student of any course it is teaching	PASS	Yes
	9 Login as Faculty - > modify grades	Faculty can modify the grade of any student of any of the course it is teaching	Faculty can modify the grade of any student of any of the course it is teaching	PASS	Yes
	10 Login - > logout	User can logout of the system successfully	User can logout of the system successfully	PASS	Yes

5. Test Failed

Common Error : If function takes input as string then it fails for any input other than strings.