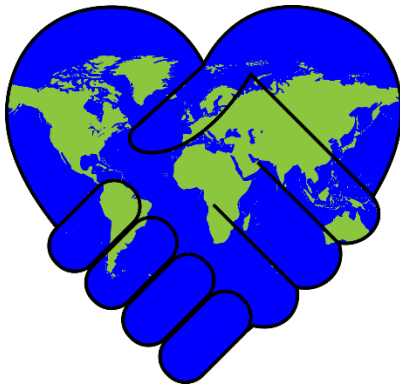




Laurea Triennale in informatica - Università di Salerno

Corso di *Ingegneria del Software* – Prof.ssa F. Ferrucci, Prof. Carmine Gravino



# EasyAgreement

## TSR TEST SUMMARY REPORT

<b>Versione</b>	<b>1.0</b>
<b>Data</b>	12/01/2020
<b>Destinatario</b>	Prof. Carmine Gravino, Prof.ssa Filomena Ferrucci
<b>Presentato da</b>	Tutti i team members
<b>Approvato da</b>	Francesco Califano, Domenico Marino



Laurea Triennale in informatica - Università di Salerno

Corso di *Ingegneria del Software* – Prof.ssa F. Ferrucci, Prof. Carmine Gravino

## Revision History

Data	Versione	Descrizione	Autori
12/01/2020	1.0	Prima stesura	Tutti i team members



Laurea Triennale in informatica - Università di Salerno

Corso di *Ingegneria del Software* – Prof.ssa F. Ferrucci, Prof. Carmine Gravino

## Team composition

Role	Name	Position	Contact
<b>Top manager</b>	Filomena Ferrucci	Cliente	f.ferrucci@unisa.it
<b>Project Manager</b>	Francesco Califano	Project Manager	f.califano20@studenti.unisa.it
<b>Project Manager</b>	Domenico Marino	Project Manager	d.marino20@studenti.unisa.it
<b>Team Member</b>	Alessio Ambruoso	Team Member	a.ambruoso1@studenti.unisa.it
<b>Team Member</b>	Salvatore Amideo	Team Member	s.amideo@studenti.unisa.it
<b>Team Member</b>	Marco Borrelli	Team Member	m.borrelli18@studenti.unisa.it
<b>Team Member</b>	Marco Ciano	Team Member	m.ciano4@studenti.unisa.it
<b>Team Member</b>	Luigi Pasetti	Team Member	l.pasetti@studenti.unisa.it
<b>Team Member</b>	Armando Soddisfatto	Team Member	a.soddisfatto@studenti.unisa.it
<b>Team Member</b>	Roberto Veneruso	Team Member	r.veneruso1@studenti.unisa.it
<b>Team Member</b>	Veronica Volpicelli	Team Member	v.volpicelli4@studenti.unisa.it



## Sommario

Revision History .....	2
Team composition.....	3
1. Introduzione .....	6
1.1 Identificativo del documento .....	6
1.2 Scopo .....	6
1.3 Riferimenti .....	6
2. Risultati test di unità.....	7
2.1 Features testate .....	7
2.2 Panoramica dei risultati dei test .....	8
2.2.1 Gestione Tutor .....	8
Classe TutorControl .....	8
Classe ViewListControl .....	10
2.2.2 Gestione Learning Agreement.....	11
Classe learningAgreementControl.....	11
2.2.3 Gestione Autenticazione e Registrazione .....	15
Classe loginControl .....	15
Classe registerControl .....	16
2.2.4 Gestione Notifiche .....	17
Classe notificationControl .....	17
2.2.5 Gestione Profilo .....	18
Classi studentControl, academicControl, externalControl, administratorControl .....	18
2.2.6 Gestione Richieste .....	20
Classe requestControl.....	20



2.2.7 Gestione Documenti .....	20
Classe documentControl .....	20
2.2.8 Gestione Chat .....	21
Classe messageControl .....	21
3. Risultati test di integrazione .....	22
3.1 Panoramica dei risultati dei test .....	22
4. Risultati test di sistema.....	25
4.1 Panoramica dei risultati dei test .....	26
4.1.1 Lato Studente .....	26
4.1.2 Lato Tutor Accademico .....	27
4.1.3 Lato Tutor esterno .....	28
4.1.4 Lato Admin .....	29
5.Coverage.....	30
6. Riepilogo del testing .....	33
7. Glossario .....	36



## 1. Introduzione

---

Questo documento mostra i risultati dell'esecuzione dei test case di unità delle varie componenti del software web Easy Agreement. In particolare, sono stati testati i controller e i model del software con l'utilizzo di Mocha&Chai, e successivamente è stato effettuato il testing di sistema con Selenium.

### 1.1 Identificativo del documento

Il documento in questione è caratterizzato da alcune proprietà che lo definiscono univocamente; tali proprietà riguardano la data di stesura, i nomi degli autori del documento e l'approvazione da parte dei project manager.

### 1.2 Scopo

Il Test Summary Report fornisce una presentazione dei casi di test di unità, di integrazione e di sistema per il software Easy Agreement. I membri del team si sono impegnati nel verificare che le singole unità del sistema (classi e metodi) abbiano avuto il comportamento atteso.

### 1.3 Riferimenti

- EA\_RAD\_V\_2.1.docx
- EA\_SDD\_V\_1.1.docx
- EA\_ODD\_V\_1.1.docx
- EA\_TCS\_V\_1.1.docx
- B. Bruegge, A.H.Dutoit, *ObjectOrientedSoftwareEngineering—UsingUML, Patterns and Java*, Prentice Hall.
- Slides del corso presenti sulla piattaforma.



## 2. Risultati test di unità

---

Di seguito vengono riportati i risultati dei test di unità in base alle varie gestioni del sistema.

### 2.1 Features testate

Il testing d'unità si propone di effettuare il test dei control presenti all'interno della propria gestione. In particolare:

1. GT – GESTIONE TUTOR:
  - viewListControl
  - tutorControl
2. GLA – GESTIONE LEARNING AGREEMENT
  - learningAgreementControl
3. GAR – GESTIONE AUTENTICAZIONE E REGISTRAZIONE
  - loginControl
  - registerControl
4. GN – GESTIONE NOTIFICHE
  - notificationControl
5. GP – GESTIONE PROFILO
  - studentControl
  - academicTutorControl
  - externalTutorControl
  - administratorControl
6. GR – GESTIONE RICHIESTE
  - requestControl
7. GD – GESTIONE DOCUMENTI
  - documentControl
8. GC – GESTIONE CHAT
  - messageControl



## 2.2 Panoramica dei risultati dei test

### 2.2.1 Gestione Tutor

#### Classe TutorControl

```
1832   Field test for tutorControl
1833   Connected successfully to server!
1834       ✓ Testin method tutorControl - TC_TM_1.1
1835   Academic Tutor inserted correctly!
1836   Field test for tutorControl
1837       ✓ Testin method tutorControl - TC_TM_1.2
1838   Field test for tutorControl
1839       ✓ Testin method tutorControl - TC_TM_1.3
1840   Field test for tutorControl
1841       ✓ Testin method tutorControl - TC_TM_1.4
1842   Field test for tutorControl
1843       ✓ Testin method tutorControl - TC_TM_1.5
1844   Field test for tutorControl
1845       ✓ Testin method tutorControl - TC_TM_1.6
1846   Field test for tutorControl
1847       ✓ Testin method tutorControl - TC_TM_1.7
1848   Field test for tutorControl
1849       ✓ Testin method tutorControl - TC_TM_1.8
1850   Field test for tutorControl
1851       ✓ Testin method tutorControl - TC_TM_1.9
1852   Field test for tutorControl
1853       ✓ Testin method tutorControl - TC_TM_1.10
1854   Field test for tutorControl
1855       ✓ Testin method tutorControl - already reg (61ms)
1856   Field test for tutorControl
1857       ✓ Testin method tutorControl - reg (61ms)
1858   Field test for tutorControl
1859       ✓ Testin method tutorControl - TC_TM_2.1
1860   Field test for tutorControl
1861       ✓ Testin method tutorControl - TC_TM_2.2
1862   Successfully added an External Tutor to database!
1863   Field test for tutorControl
1864       ✓ Testin method tutorControl - TC_TM_2.3
1865   Field test for tutorControl
1866       ✓ Testin method tutorControl - TC_TM_2.4
```





```
1867      Field test for tutorControl
1868          ✓ Testin method tutorControl - TC_TM_2.5
1869      Field test for tutorControl
1870          ✓ Testin method tutorControl - TC_TM_2.6
1871      Field test for tutorControl
1872          ✓ Testin method tutorControl - TC_TM_2.7
1873      Field test for tutorControl
1874          ✓ Testin method tutorControl - TC_TM_2.7
1875      Field test for tutorControl
1876          ✓ Testin method tutorControl - TC_TM_2.8
1877      Field test for tutorControl
1878          ✓ Testin method tutorControl - TC_TM_2.9
1879      Field test for tutorControl
1880          ✓ Testin method tutorControl - TC_TM_2.10
1881      Field test for tutorControl
1882          ✓ Testin method tutorControl - TC_TM_2.11
1883      Field test for tutorControl
1884          ✓ Testin method tutorControl - TC_TM_2.12
1885      Field test for tutorControl
1886          ✓ Testin method tutorControl - TC_TM_2.14
1887      Field test for tutorControl
1888          ✓ Testin method tutorControl - TC_TM_2.15
1889      Field test for tutorControl
1890          ✓ Testin method tutorControl - TC_TM_2.16
1891      Field test for tutorControl
1892      Successfully added Host Organization to database!
1893          ✓ Testin method tutorControl - already reg
1894      Field test for tutorControl
1895          ✓ Testin method tutorControl - deleteHostOrg
1896      Field test for tutorControl
1897          ✓ Testin method tutorControl - deleteHostOrg
1898      Field test for tutorControl
1899          ✓ Testin method tutorControl - deleteExt
1900      Field test for tutorControl
1901          ✓ Testin method tutorControl - deleteExt
```



**Classe ViewListControl**

```
1763  Field test for viewListControl
1764      ✓ Testing retrieveAll academicTutor
1765      ✓ Testing retrieveAll externalTutor
1766      ✓ Testing retrieveAll hostOrganization
1767      ✓ Testing getHost for info
1768      ✓ Testing getAcademic for info
1769      ✓ Testing getExternal for info
1770
```



Laurea Triennale in informatica - Università di Salerno

Corso di *Ingegneria del Software* – Prof.ssa F. Ferrucci, Prof. Carmine Gravino

### ***2.2.2 Gestione Learning Agreement***

#### ***Classe learningAgreementControl***



```
379      Field test for learningAgreementControl
380      ✓ Testing method sendLaStudent - TC_LAM_1.1
381      ✓ Testing method sendLaStudent - TC_LAM_1.2
382      ✓ Testing method sendLaStudent - TC_LAM_1.3
383      ✓ Testing method sendLaStudent - TC_LAM_1.4
384      ✓ Testing method sendLaStudent - TC_LAM_1.5
385      ✓ Testing method sendLaStudent - TC_LAM_1.6
386      ✓ Testing method sendLaStudent - TC_LAM_1.7
387      ✓ Testing method sendLaStudent - TC_LAM_1.8
388      ✓ Testing method sendLaStudent - TC_LAM_1.9
389      ✓ Testing method sendLaStudent - TC_LAM_1.10
390      ✓ Testing method sendLaStudent - TC_LAM_1.11
391      ✓ Testing method sendLaStudent - TC_LAM_1.12
392      ✓ Testing method sendLaStudent - TC_LAM_1.13
393      ✓ Testing method sendLaStudent - TC_LAM_1.14
394      ✓ Testing method sendLaStudent - TC_LAM_1.15
395      ✓ Testing method sendLaStudent - TC_LAM_1.16
396      ✓ Testing method sendLaStudent - TC_LAM_1.17
397      ✓ Testing method sendLaStudent - TC_LAM_1.18
398      ✓ Testing method sendLaStudent - TC_LAM_1.19
399      ✓ Testing method sendLaStudent - TC_LAM_1.20
400      ✓[90m Testing method sendLaStudent - TC_LAM_1.21
353      ✓ Testing method sendLaStudent - TC_LAM_1.22
354      ✓ Testing method sendLaStudent - TC_LAM_1.23
355      ✓ Testing method sendLaStudent - TC_LAM_1.24
356      ✓ Testing method sendLaStudent - TC_LAM_1.25
357      ✓ Testing method sendLaStudent - TC_LAM_1.26
358      ✓ Testing method sendLaStudent - TC_LAM_1.27
359      ✓ Testing method sendLaStudent - TC_LAM_1.28
360      ✓ Testing method sendLaStudent - TC_LAM_1.29
361      ✓ Testing method sendLaStudent - TC_LAM_1.30
362      ✓ Testing method sendLaStudent - TC_LAM_1.31
363      ✓ Testing method sendLaStudent - TC_LAM_1.32
364      ✓ Testing method sendLaStudent - TC_LAM_1.33
365      ✓ Testing method sendLaStudent - TC_LAM_1.34
366      ✓ Testing method sendLaStudent - TC_LAM_1.35
367      ✓ Testing method sendLaStudent - TC_LAM_1.36
368      ✓ Testing method sendLaStudent - TC_LAM_1.37
```



```
368      ✓ Testing method sendLaStudent - TC_LAM_1.37
369      ✓ Testing method sendLaStudent - TC_LAM_1.38
370      ✓ Testing method sendLaStudent - TC_LAM_1.39
371      ✓ Testing method sendLaStudent - TC_LAM_1.40
372      ✓ Testing method sendLaStudent - TC_LAM_1.41
373      ✓ Testing method sendLaStudent - TC_LAM_1.42
374      ✓ Testing method sendLaStudent - TC_LAM_1.43
375      ✓ Testing method sendLaStudent - TC_LAM_1.44
401      ✓ Testing method sendLaStudent - TC_LAM_1.45
402      ✓ Testing method sendLaStudent - TC_LAM_1.46
403      ✓ Testing method sendLaStudent - TC_LAM_1.47
404      ✓ Testing method sendLaStudent - TC_LAM_1.48
405      ✓ Testing method sendLaStudent - TC_LAM_1.49
406      ✓ Testing method sendLaStudent - TC_LAM_1.50
407      ✓ Testing method sendLaStudent - TC_LAM_1.51
408      ✓ Testing method sendLaStudent - TC_LAM_1.52
409      ✓ Testing method sendLaStudent - TC_LAM_1.53
410      ✓ Testing method sendLaStudent - TC_LAM_1.54
411      ✓ Testing method sendLaStudent - TC_LAM_1.55
412      ✓ Testing method sendLaStudent - TC_LAM_1.56
413      ✓ Testing method sendLaStudent - TC_LAM_1.57
414      ✓ Testing method sendLaStudent - TC_LAM_1.58
415      ✓ Testing method sendLaStudent - TC_LAM_1.59
416      ✓ Testing method sendLaStudent - TC_LAM_1.60
417      ✓ Testing method sendLaStudent - TC_LAM_1.61
418      ✓ Testing method saveLaStudent - TC_LAM_1.63
419      ✓ Testing method sendLaStudent - TC_LAM_1.62 (198ms)
420      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.1
421      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.2
422      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.3
423      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.40m
350      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.5
351      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.6
352      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.7
424      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.8 (196ms)
429      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.9
430      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.10
```



```
368      ✓ Testing method sendLaStudent - TC_LAM_1.37
369      ✓ Testing method sendLaStudent - TC_LAM_1.38
370      ✓ Testing method sendLaStudent - TC_LAM_1.39
371      ✓ Testing method sendLaStudent - TC_LAM_1.40
372      ✓ Testing method sendLaStudent - TC_LAM_1.41
373      ✓ Testing method sendLaStudent - TC_LAM_1.42
374      ✓ Testing method sendLaStudent - TC_LAM_1.43
375      ✓ Testing method sendLaStudent - TC_LAM_1.44
401      ✓ Testing method sendLaStudent - TC_LAM_1.45
402      ✓ Testing method sendLaStudent - TC_LAM_1.46
403      ✓ Testing method sendLaStudent - TC_LAM_1.47
404      ✓ Testing method sendLaStudent - TC_LAM_1.48
405      ✓ Testing method sendLaStudent - TC_LAM_1.49
406      ✓ Testing method sendLaStudent - TC_LAM_1.50
407      ✓ Testing method sendLaStudent - TC_LAM_1.51
408      ✓ Testing method sendLaStudent - TC_LAM_1.52
409      ✓ Testing method sendLaStudent - TC_LAM_1.53
410      ✓ Testing method sendLaStudent - TC_LAM_1.54
411      ✓ Testing method sendLaStudent - TC_LAM_1.55
412      ✓ Testing method sendLaStudent - TC_LAM_1.56
413      ✓ Testing method sendLaStudent - TC_LAM_1.57
414      ✓ Testing method sendLaStudent - TC_LAM_1.58
415      ✓ Testing method sendLaStudent - TC_LAM_1.59
416      ✓ Testing method sendLaStudent - TC_LAM_1.60
417      ✓ Testing method sendLaStudent - TC_LAM_1.61
418      ✓ Testing method saveLaStudent - TC_LAM_1.63
419      ✓ Testing method sendLaStudent - TC_LAM_1.62 (198ms)
420      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.1
421      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.2
422      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.3
423      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.40m
350      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.5
351      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.6
352      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.7
424      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.8 (196ms)
429      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.9
430      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.10
```



```
431      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.11
432      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.12
433      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.13
434      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.14
435      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.15
436      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.16
437      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.17
438      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.18
439      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.19
440      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.20
441      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.21
442      ✓ Testing method saveLaAcademicTutor
443      ✓ Testing method sendLaAcademicTutor - TC_LAM_2.22 (198ms)
444      ✓ Testing method sendLaExternalTutor - TC_LAM_3.1
445      ✓ Testing method sendLaExternalTutor - TC_LAM_3.2
446      ✓ Testing method sendLaExternalTutor - TC_LAM_3.3
447      ✓ Testing method sendLaExternalTutor - TC_LAM_3.4
448      ✓ Testing method sendLaExternalTutor - TC_LAM_3.5
449      ✓ Testing method sendLaExternalTutor - TC_LAM_3.6
425      ✓ Testing method sendLaExternalTutor - TC_LAM_3.7
426      ✓ Testing method sendLaExternalTutor - TC_LAM_3.8
427      ✓ Testing method sendLaExternalTutor - TC_LAM_3.9
428      ✓ Testing method saveLaExternalTutor
450      ✓ Testing method sendLaExternalTutor - TC_LAM_3.10 (252ms)
451      ✓ Testing method getVersion - TC_LAM_4.1
452      ✓ Testing method getVersion - TC_LAM_4.2
453      ✓ Testing method getAllVersions
454      ✓ Testing method getData
455      ✓ Testing method disapproveAcademicTutor
456      ✓ Testing method sendLaStudent - delete Request (201ms)
457      ✓ Testing method disapproveExternalTutor
```

### *2.2.3 Gestione Autenticazione e Registrazione*

#### *Classe loginControl*



```
1771 Login unit testing...
1772   ✓ testing method loginControl - TC_ARM_1.1.1 & TC_ARM_1.2.1 & TC_ARM_1.3.1 & TC_ARM_1.4.1
1773   ✓ testing method loginControl - TC_ARM_1.1.2 & TC_ARM_1.2.2 & TC_ARM_1.3.2 & TC_ARM_1.4.2
1774   ✓ testing method loginControl - TC_ARM_1.1.3
1775   ✓ testing method loginControl - TC_ARM_1.2.3
1776   ✓ testing method loginControl - TC_ARM_1.3.3
1777   ✓ testing method loginControl - TC_ARM_1.4.3
1778   ✓ testing method loginControl - TC_ARM_1.1.4 & TC_ARM_1.2.4 & TC_ARM_1.3.4 & TC_ARM_1.4.4
1779   ✓ testing method loginControl - TC_ARM_1.1.5 & TC_ARM_1.2.5 & TC_ARM_1.3.5 & TC_ARM_1.4.5
1780   ✓ testing method loginControl - TC_ARM_1.1.6 (61ms)
1781   ✓ testing method loginControl - TC_ARM_1.2.6 (71ms)
1782   ✓ testing method loginControl - TC_ARM_1.3.6 (65ms)
1783   ✓ testing method loginControl - TC_ARM_1.4.6 (67ms)
1784   ✓ testing method loginControl - TC_ARM_1.1.7 (64ms)
1785   ✓ testing method loginControl - TC_ARM_1.2.7 (64ms)
1786   ✓ testing method loginControl - TC_ARM_1.3.7 (68ms)
1787   ✓ testing method loginControl - TC_ARM_1.4.7 (67ms)
```

### *Classe registerControl*





#### 1797 Field test for registerControl

```
1798      ✓ Testin method registerControl - TC_ARM_2.1.1
1799      ✓ Testin method registerControl - TC_ARM_2.1.2
1800      ✓ Testin method registerControl - TC_ARM_2.1.3
1801      ✓ Testin method registerControl - TC_ARM_2.1.4
1802      ✓ Testin method registerControl - TC_ARM_2.1.5
1803      ✓ Testin method registerControl - TC_ARM_2.1.6
1804      ✓ Testin method registerControl - TC_ARM_2.1.7 (63ms)
1805      ✓ Testin method registerControl - TC_ARM_2.1.8
1806      ✓ Testin method registerControl - TC_ARM_2.1.9
1807      ✓ Testin method registerControl - TC_ARM_2.1.10 (60ms)
1808      ✓ Testin method registerControl - TC_ARM_2.1.11
1809      ✓ Testin method registerControl - TC_ARM_2.1.12
1810      ✓ Testin method registerControl - TC_ARM_2.1.13
1811      ✓ Testin method registerControl - TC_ARM_2.1.14
1812      ✓ Testin method registerControl - TC_ARM_2.1.15
1813      ✓ Testin method registerControl - TC_ARM_2.1.16
1814      ✓ Testin method registerControl - TC_ARM_2.1.17
1815      ✓ Testin method registerControl - TC_ARM_2.1.18
1816      ✓ Testin method registerControl - TC_ARM_2.1.19 (60ms)
1817      ✓ Testin method RegisterControl - TC_ARM_2.2.1
1818      ✓ Testin method RegisterControl - TC_ARM_2.2.2
1819      ✓ Testin method RegisterControl - TC_ARM_2.2.3
1820      ✓ Testin method RegisterControl - TC_ARM_2.2.4
1821      ✓ Testin method RegisterControl - TC_ARM_2.2.5
1822      ✓ Testin method RegisterControl - TC_ARM_2.2.6
```

```
1824      ✓ Testin method RegisterControl - TC_ARM_2.2.7 (62ms)
1825      ✓ Testin method RegisterControl - TC_ARM_2.2.8
1826      ✓ Testin method RegisterControl - TC_ARM_2.2.9
1827      ✓ Testin method RegisterControl - TC_ARM_2.2.10
1828      ✓ Testin method RegisterControl - TC_ARM_2.2.11
```

```
1830      ✓ Testin method RegisterControl - TC_ARM_2.2.12 (62ms)
```

```
1831
```

### 2.2.4 Gestione Notifiche

#### Classe notificationControl



```
1789   Field test for notificationControl
1790       ✓ Testing insertNotification
1791       ✓ Testing getAllNotifications
1792       ✓ Testing removeNotification
1793       ✓ Testing setReceivedNotification true
1794       ✓ Testing getReceivedNotification
1795       ✓ Testing setReceivedNotification false
1796
```

#### *2.2.5 Gestione Profilo*

*Classi studentControl, academicControl, externalControl, administratorControl*



```
1926    Field test for profileControl
1927      ✓ testing method academicTutorControl - TC_PM_1.2.1
1928      ✓ testing method academicTutorControl - TC_PM_1.2.2
1929    Connected successfully to server!
1930    .
1931    1 document updated
1932      ✓ testing method academicTutorControl - TC_PM_1.2.3
1933      ✓ testing method academicTutorControl - TC_PM_1.2.4
1934      ✓ testing method academicTutorControl - TC_PM_1.2.5
1935    Connected successfully to server!
1936    .
1937    1 document updated
1938      ✓ testing method academicTutorControl - TC_PM_1.2.6
1939      ✓ testing method academicTutorControl - TC_PM_1.2.10
1940      ✓ testing method academicTutorControl - TC_PM_1.2.11
1941    Connected successfully to server!
1942    .
1943    1 document updated
1944      ✓ testing method academicTutorControl - TC_PM_1.2.12
1945      ✓ testing method academicTutorControl - TC_PM_1.2.13
1946      ✓ testing method academicTutorControl - TC_PM_1.2.14
1947      ✓ testing method academicTutorControl - TC_PM_1.2.15
1948      ✓ testing method academicTutorControl - TC_PM_1.2.16
1949      ✓ testing method academicTutorControl - TC_PM_1.2.17
1950      ✓ testing method academicTutorControl - change passw (61ms)
1951
1952    Field test for administratorControl
1953      ✓ testing method administratorControl - TC_PM_1.3.13
1954      ✓ testing method administratorControl - TC_PM_1.3.14
1955      ✓ testing method administratorControl - TC_PM_1.3.15
1956      ✓ testing method administratorControl - TC_PM_1.3.16
1957      ✓ testing method administratorControl - TC_PM_1.3.17
1958    Connected successfully to server!
1959    .
1960    1 document updated
```



```
1961      ✓ testing method administratorControl - change passw (125ms)
1962
1963      Field test for profileControl
1964      ✓ testing method externalTutorControl - TC_PM_1.3.1
1965      ✓ testing method externalTutorControl - TC_PM_1.3.2
1966      Connected successfully to server!
1967      .
1968      1 document updated
1969      ✓ testing method externalTutorControl - TC_PM_1.3.3
1970      ✓ testing method externalTutorControl - TC_PM_1.3.4
1971      ✓ testing method externalTutorControl - TC_PM_1.3.5
1972      Connected successfully to server!
1973      .
1974      1 document updated
1975      ✓ testing method externalTutorControl - TC_PM_1.3.6
1976      ✓ testing method externalTutorControl - TC_PM_1.3.10
1977      ✓ testing method externalTutorControl - TC_PM_1.3.11
1978      Connected successfully to server!
1979      .
1980      1 document updated
1981      ✓ testing method externalTutorControl - TC_PM_1.3.12
1982      ✓ testing method externalTutorControl - TC_PM_1.3.13
1983      ✓ testing method externalTutorControl - TC_PM_1.3.14
1984      ✓ testing method externalTutorControl - TC_PM_1.3.15
1985      ✓ testing method externalTutorControl - TC_PM_1.3.16
1986      ✓ testing method externalTutorControl - TC_PM_1.3.17
1987      ✓ testing method externalTutorControl - change passw (61ms)
1988
1989      Field test for profileControl
1990      ✓ testing method studentControl - TC_PM_1.1.1
1991      ✓ testing method studentControl - TC_PM_1.1.2
1992      Connected successfully to server!
1993      .
1994      1 document updated
```

### *2.2.6 Gestione Richieste*

#### *Classe requestControl*

```
616      Field test for requestControl
617      ✓ Test method getAllRequests
618      ✓ Test method getRequest
619      ✓ Test method getRequestDetails
620
```

### *2.2.7 Gestione Documenti*

#### *Classe documentControl*



```
283  Field test for documentControl
284      ✓ Testing insertIDCard (57ms)
285      ✓ Testing insertCV
286      ✓ Testing viewIDCard
287      ✓ Testing viewCV
288      ✓ Testing getIDCard
289      ✓ Testing getCV
290      ✓ Testing deleteIDCard
291      ✓ Testing deleteCV
```

### ***2.2.8 Gestione Chat***

#### **Classe messageControl**



```
264 EasyAgreement Platform listening on port 8080!
265   Field test for messageControl
266     ✓ Testing saveMessage
267     ✓ Testing getMessages
268     ✓ Testing getContacts 1
269     ✓ Testing getContacts 2
270     ✓ Testing getContacts 3
271     ✓ Testing searchUser 1.1
272     ✓ Testing searchUser 1.2
273     ✓ Testing searchUser 1.3
274     ✓ Testing searchUser 2.1
275     ✓ Testing searchUser 2.2
276     ✓ Testing searchUser 2.3
277     ✓ Testing updateMessage
278     ✓ Testing removeMessage
279     ✓ Testing setReceivedMessage true
280     ✓ Testing getReceivedMessage
281     ✓ Testing setReceivedMessage false
```

## 3. Risultati test di integrazione

### 3.1 Panoramica dei risultati dei test

Lo scopo del test di integrazione, data l'architettura software impiegata, è di verificare il corretto funzionamento degli endpoint dell'applicazione, controllando il risultato atteso dalla response. Esso rappresenta una delle fasi di testing più importanti, in quanto consiste nella verifica delle interazioni tra 2 o più componenti. Per eseguirlo è stato utilizzato Mocha. Elenchiamo qui i risultati:



```
293   Integration Testing
294   ✓ Test for /login (86ms)
295   (node:6222) [DEP0066] DeprecationWarning: OutgoingMessage.prototype._headers is deprecated
296   ✓ Test for /index.html (88ms)
297   ✓ Test for /compileLAsStudent.html (72ms)
298   ✓ Test for /saveStudent (84ms)
299   ✓ Test for /compileStudent (1819ms)
300   ✓ Test for /fillForm (84ms)
301   ✓ Test for /saveAcademicTutor (110ms)
302   ✓ Test for /fillFormRequest (88ms)
303   ✓ Test for /disapproveAcademicTutor (94ms)
304   ✓ Test for /compileAcademicTutor (331ms)
305   ✓ Test for /saveExternalTutor (103ms)
306   ✓ Test for /disapproveExternalTutor (96ms)
307   ✓ Test for /compileExternalTutor (333ms)
308   ✓ Test for /getRequest (81ms)
309   ✓ Test for /getRequests (93ms)
310   ✓ Test for /getDetails (83ms)
311   ✓ Test for /getAllRequestVersions (103ms)
312   ✓ Test for /getRequestVersions (96ms)
313   ✓ Test for /getVersions (85ms)
314   ✓ Test for /getAllVersions (84ms)
315   ✓ Test for /getStatus (70ms)
316   ✓ Test for /uploadID (73ms)
317   ✓ Test for /uploadCV (89ms)
318   ✓ Test for /fileviewID (74ms)
319   ✓ Test for /fileviewCV (81ms)
320   ✓ Test for /fileviewIDRequest (84ms)
321   ✓ Test for /fileviewCVRequest (88ms)
322   ✓ Test for /viewLA.html (67ms)
323   ✓ Test for /gestioneDocumenti.html (74ms)
324   ✓ Test for /updateProfile for External Tutor (83ms)
325   ✓ Test for /updateProfile for Academic Tutor (80ms)
326   ✓ Test for /updateProfile for Student (77ms)
327   ✓ Test for /profile (74ms)
328   ✓ Test for /logout (66ms)
329   ✓ Test for /signup for Student (68ms)
```





```
330      ✓ Test for get / (69ms)
331      ✓ Test for /signup for Academic (65ms)
332      ✓ Test for /addHostOrg (86ms)
333      ✓ Test for /addHostOrgF (81ms)
334      ✓ Test for /addExtTutor (79ms)
335      ✓ Test for /addExtTutorF (138ms)
336      ✓ Test for /deleteHostOrg (79ms)
337      ✓ Test for /deleteExtTutor (81ms)
338      ✓ Test for /compileLaExternalTutor.html (71ms)
339      ✓ Test for /compileLAAcademicTutor.html (76ms)
340      ✓ Test for /viewRequest.html (70ms)
341      ✓ Test for /request.html (69ms)
342      ✓ Test for /signup.html
343      ✓ Test for /getCVState (71ms)
344      ✓ Test for /getIDState (70ms)
345      ✓ Test for /deleteCV (83ms)
346      ✓ Test for /deleteID (79ms)
347      ✓ Test for /getConnectedUser (66ms)
348      ✓ Test for /updatePassword for Student (190ms)
349      ✓ Test for /updatePassword for Admin (205ms)
350      ✓ Test for /updatePassword for Academic Tutor (196ms)
351      ✓ Test for /updatePassword for External Tutor (193ms)
352      ✓ Test for /getReceivedMessage (73ms)
353      ✓ Test for /setReceivedMessage (77ms)
354      ✓ Test for /getReceivedNotification (74ms)
355      ✓ Test for /setReceivedNotification (74ms)
356      ✓ Test for /insertNotification (72ms)
357      ✓ Test for /getAllNotifications (73ms)
358      ✓ Test for /removeNotification (81ms)
359      ✓ Test for /removeMessage (84ms)
360      ✓ Test for /saveMessage (72ms)
361      ✓ Test for /updateMessage (77ms)
362      ✓ Test for /getMessages (75ms)
363      ✓ Test for /searchUser student (72ms)
364      ✓ Test for /searchUser academicTutor (78ms)
365      ✓ Test for /searchUser externalTutor (78ms)
366      ✓ Test for /toViewList (72ms)
```





```
367      ✓ Test for /getUserList host (69ms)
368      ✓ Test for /getUserList academicTutor (67ms)
369      ✓ Test for /getUserList externalTutor (67ms)
370      ✓ Test for /toviewInfo (71ms)
371      ✓ Test for /toviewInfo (69ms)
372      ✓ Test for /toviewInfo (71ms)
```

## 4. Risultati test di sistema

---

Di seguito vengono riportati i risultati dei test di sistema in base agli attori del sistema:



## 4.1 Panoramica dei risultati dei test

### 4.1.1 Lato Studente

Project: EasyAgreementStudent

Tests ▾ +

Search tests... 🔍

AcademicTutorListTest

ChatStudentTest

DocumentCVStudentTest

DocumentIDStudentTest

ExternalTutorListTest

HostOrganizationListTest

LoginStudentTest

LogoutStudentTest

ProfileStudentTest

UpdateStudentProfileTest

ViewNotificationStudentTest

compileLAsStudentTest

registerStudentTest

viewLAsstudent

Runs: 14 Failures: 0



Laurea Triennale in informatica - Università di Salerno

Corso di *Ingegneria del Software* – Prof.ssa F. Ferrucci, Prof. Carmine Gravino

#### 4.1.2 Lato Tutor Accademico

Project: EasyAgreementAcademicTutor

Tests ▾

+

Chat Message

Edit Profile

Login

Logout

Register

Search Chat

View Chat

View Info External Tutor

View Info Host Organization

View List External Tutor

View List Host Organization

View Notification

View Profile

View Request Document and Disapprove

View Request Document and View CV

View Request Document and View ID

View Request List

View Request, Approve and Delete Notification

Runs: 18 Failures: 0



Laurea Triennale in informatica - Università di Salerno

Corso di *Ingegneria del Software* – Prof.ssa F. Ferrucci, Prof. Carmine Gravino

#### 4.1.3 Lato *Tutor esterno*

Project: **EasyAgreementExternalTutor**

Tests ▾ +

Search tests... Q

AcademicTutorListTest

ChatExternalTutorTest

DisapproveLAExternalTutorTest

EditPasswordExternalTutorTest

EditPersonalDataExternalTutorTest

ExternalTutorLoginTest

ExternalTutorLogoutTest

HostOrganizationListTest

ViewNotificationExternalTutorTest

ViewProfileExternalTutorTest

ViewRequestsListExternalTutorTest

compileLAExternalTutorTest

---

Runs: 12 Failures: 0



Laurea Triennale in informatica - Università di Salerno

Corso di *Ingegneria del Software* – Prof.ssa F. Ferrucci, Prof. Carmine Gravino

#### 4.1.4 Lato Admin

Project: **EasyAgreementAdministrator**

Tests ▾

+

EditPasswordTest

Insert/DeleteExternalTutorTest

Insert/DeleteHostOrganizationTest

LoginAdminTest

LogoutAdminTest

ViewInfoExternalTutorTest

ViewInfoHostOrganizationTest

ViewListAcademicTutorTest

ViewListExternalTutorTest

ViewListHostOrganizationTest

---

Runs: 10   Failures: 0



Laurea Triennale in informatica - Università di Salerno

Corso di *Ingegneria del Software* – Prof.ssa F. Ferrucci, Prof. Carmine Gravino

## 5.Coverage



Laurea Triennale in informatica - Università di Salerno

Corso di *Ingegneria del Software* – Prof.ssa F. Ferrucci, Prof. Carmine Gravino





TREE	LIST 24	CHANGED 1	SOURCE CHANGED 0	COVERAGE CHANGED 1
▼	92.7	app/		
▼	92.91	controllers/		
—	96.3	<a href="#">academicTutorControl.js</a>		
—	89.8	<a href="#">administratorControl.js</a>		
—	76.77	<a href="#">documentControl.js</a>		
—	96.3	<a href="#">externalTutorControl.js</a>		
—	100.0	<a href="#">hash.js</a>		
—	80.88	<a href="#">learningAgreementControl.js</a>		
—	100.0	<a href="#">loginControl.js</a>		
—	82.95	<a href="#">messageControl.js</a>		
↑	95.56	<a href="#">notificationControl.js</a>		
—	96.15	<a href="#">registerControl.js</a>		
—	95.0	<a href="#">requestControl.js</a>		
—	94.49	<a href="#">studentControl.js</a>		
—	99.0	<a href="#">tutorControl.js</a>		
—	95.65	<a href="#">viewListControl.js</a>		





Laurea Triennale in informatica - Università di Salerno

Corso di *Ingegneria del Software* – Prof.ssa F. Ferrucci, Prof. Carmine Gravino

▼	92.31	models/
85.71	academicTutor.js	
84.38	administrator.js	
80.57	externaltutor.js	
89.32	hostorganization.js	
76.88	learningAgreement.js	
80.34	message.js	
80.9	notification.js	
78.95	request.js	
83.02	student.js	
64.9	server.js	

## 6. Riepilogo del testing

	Numero di componenti testate	Numeri di errori trovati	Numero di errori corretti	Numero di componenti non testate
Control	13	0	0	0
Model	9	0	0	0
Integration Testing	1	1	1	0

Esempio:



Durante lo sviluppo del testing d'integrazione abbiamo riscontrato dei problemi nel settare la sessione per alcune funzionalità.

```
test > jest integrationTesting.js --runInBand --verbose --no-coverage
PASS integrationTesting.js
  describe Integration Testing
    it Test for /compileLASTudent.html
      agent
        .get /compileLASTudent.html
        .redirects 0
        .end function err, res {
          if err done err
          expect res.status 200
          done
        }
      }
    }
  }

0 passing (81ms)
1 failing

1) Integration Testing
   Test for /compileLASTudent.html:
     Uncaught AssertionError: expected { Object { _events, _eventsCount, ... } } to have status code 200 but got 302
       + expected - actual
       -302
       +200

at /home/alessio/Scrivania/EasyAgreement/test/integrationTesting.js:15:29
at TestRequest.callback (node_modules/superagent/lib/node/index.js:716:12)
at IncomingMessage.<anonymous> (node_modules/superagent/lib/node/index.js:916:18)
at endReadableNT (stream_readable.js:1215:12)
at processTicksAndRejections (internal/process/task_queues.js:84:21)
```

In questo esempio il problema riguardava la compilazione del Learning Agreement da parte dello studente.

Siamo riusciti a capire il problema e lo abbiamo risolto inserendo le richieste al server, dopo quella del login, quando necessario. In questo modo era l'utente loggato al sistema ad eseguire queste funzionalità. Questo è il modo con il quale abbiamo risolto.



Laurea Triennale in informatica - Università di Salerno

Corso di *Ingegneria del Software* – Prof.ssa F. Ferrucci, Prof. Carmine Gravino

```
integrationTesting.js
test > JS integrationTesting.js > describe('Integration Testing') callback
8 describe('Integration Testing', function() {
9   it('Test for /compileLASTudent.html', function (done) {
10     //bisogna prima effettuare il login per settare la sessione
11     agent
12       .post('/login')
13       .redirects(0)
14       .send({ username: 'd.devito@studenti.unisa.it', password: 'DannyDeVito' })
15       .end(function (err, res) {
16         if (err) done(err)
17         expect(res).to.have.cookie('logEff')
18         agent
19           .get('/compileLASTudent.html')
20           .redirects(0)
21           .end(function (err, res) {
22             if (err) done(err)
23             expect(res).status(200)
24             done()
25           })
26       })
27   })
28 })
```

```
aleccio@aleccio:~/Scrivania/EasyAgreement$ npm test test/integrationTesting.js
> easyagreement@1.0.0 test /home/aleccio/Scrivania/EasyAgreement
> nyc --reporter=html --reporter=text mocha --exit 'test/integrationTesting.js'

EasyAgreement Platform listening on port 8080!
Integration Testing
  ✓ Test for /compileLASTudent.html (167ms)

1 passing (199ms)
```

File	% Stmts	% Branch	% Funcs	% Lines	Uncovered Line #s
All files	9.68	1.04	4.11	10.71	



## 7. Glossario

---

- RAD (Requirement Analysis Document): Documento di Raccolta e analisi dei Requisiti; contiene l'elenco dei requisiti funzionali e non funzionali individuati in fase di individuazione degli stessi e la loro analisi sotto forma di scenari e casi d'uso. I mock-up mostrano una possibile implementazione dell'interfaccia del sistema.
- SDD (System Design Document): Documento all'interno del quale viene riportata la progettazione del sistema come risultato di una prima fase di modellazione: contiene una suddivisione ad alto livello del sistema nei sottosistemi che lo comporranno.
- ODD (Object Design Document): Documento che riporta e analizza gli oggetti che compongono il sistema analizzando le componenti a più basso livello, riportandole così come saranno implementate.
- TCS (Test Case Specification): Documento che riporta i casi di test pianificati.