**A9 – Main Accesses to the database and transactions**

1. **Main Accesses**

M01 Create new user

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| --- | --- |
| SQL101 | Creates new user in the platform |
| Web resource | R105 |
| INSERT INTO User (e\_mail, password, URL, username)  VALUES ($e\_mail, $password, $URL, $username) | |

M02 Projects

|  |  |
| --- | --- |
| SQL201 | Search project |
| Web resource | R603 |
| SELECT id, name, description, start\_date, ts\_rank\_cd(textsearch, query) AS rank  FROM Project, to\_tsquery($search) AS query, to\_tsvector(name || ‘ ‘ || description) AS textsearch  WHERE query @@ textsearch\\ ORDER BY rank DESC; | |

M03 Boards

|  |  |
| --- | --- |
| SQL301 | Search board |
| Web resource | R215 |
| SELECT id, name, description ts\_rank\_cd(textsearch, query) AS rank  FROM Board, to\_tsquery($search) AS query, to\_tsvector(name || ‘ ‘ || description) AS textsearch  WHERE query @@ textsearch\\ ORDER BY rank DESC; | |

M04 Tasks

|  |  |
| --- | --- |
| SQL401 | Search task |
| Web resource | R307 |
| SELECT id, name, description ts\_rank\_cd(textsearch, query) AS rank  FROM Task, to\_tsquery($search) AS query, to\_tsvector(name || ‘ ‘ || description) AS textsearch  WHERE query @@ textsearch\\ ORDER BY rank DESC; | |

M05 Users

|  |  |
| --- | --- |
| SQL501 | Retrieve user's current projects |
| Web resource | R503 |
| SELECT username, full\_name, e\_mail FROM User  WHERE username LIKE %$search% OR full\_name LIKE %$search%;  ORDER BY username; | |

M06 User’s projects

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| --- | --- |
| SQL601 | Retrieve user's current projects |
| Web resource | R113 |
| SELECT \*  FROM Project  INNER JOIN Project\_team ON Project.id=Project\_team.id\_project  WHERE Project.id\_coordinator=$user OR Project\_team.id\_user=$user | |

1. **Transactions**

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| --- | --- |
| T01 | Update task progress |
| Isolation level |  |
| Justification | The task progress must be updated in two different tables, which means that if information is retrieved in the middle of the transaction, the information will not be coherent. |
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| --- | --- |
| T02 | Send message to forum |
| Isolation level |  |
| Justification | When a new message is sent (new instance in Message table), the last messages sent to the forum must be re-selected, or the user will not have access to updated information. |
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| --- | --- |
| T03 | Create task |
| Isolation level |  |
| Justification | The board’s tasks must be re-read after the addition of each new task, or the user will not have access to updated information. |
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|  |  |
| --- | --- |
| T04 | Create board |
| Isolation level |  |
| Justification | The project’s boards must be re-read after the addition of each new board, or the user will not have access to updated information. |
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