Analysis:

The Application generalization is to get rid of redundancy there.

Everything that is a many-to-one relation should be composable to delete data when not being used.

Since Views and Attributes could be many-to-one to themselves, they have a recursive nature.

Scripts aren't tied to a specific EventHandler, so there is a mapping table in between that ties a script to an event handler.

SQL Output (with hand completed errors):

```
+---------------------+
| Tables_in_cs3200_hw2 |
+---------------------+
| application         |
| attribute           |
| controller          |
| data_type           |
| desktop_application |
| desktop_os          |
| developer           |
| event               |
| event_handler       |
| mobile_application  |
| mobile_os           |
| model               |
| position            |
| role                |
| script              |
| view                |
| web_application     |
| web_browser         |
+---------------------+
```

```
+-----------+
| Developer |
+-----------+
+----+----------------+
| id | name           |
+----+----------------+
|  1 | Todd Lunter    |
|  2 | Daniel Nordness |
|  3 | Rob Shore      |
|  4 | Dan Osborne    |
|  5 | Tom Hulihan    |
+----+----------------+
MariaDB [cs3200_hw2]> insert into `developer` VALUES (NULL, NULL);
ERROR 1048 (23000): Column 'name' cannot be null
+----------+
| Position |
+----------+
+-------------------+
| name              |
+-------------------+
| Architect         |
| Backend Developer |
| Business Analyst  |
| Database Admin    |
| Frontend Developer |
+-------------------+
```

```
+-----------------+
| Application Type |
+-----------------+
+--------------------+
| name               |
+--------------------+
| Desktop Application |
| Mobile Application  |
| Web Application     |
+--------------------+
+-------------+
| Application |
+-------------+
+----+-------------+------------+
| id | date_created | name       |
+----+-------------+------------+
|  1 | 2004-02-04   | Facebook    |
|  2 | 2008-07-04   | TweetDeck   |
|  3 | 2005-06-01   | reddit      |
|  4 | 2008-04-01   | GitHub      |
|  5 | 2007-02-19   | Hacker News |
+----+-------------+------------+
```

```
+------+
| Role |
+------+

+----+--------------+----------------+--------------------+
| id | developer_id | application_id | position           |
+----+--------------+----------------+--------------------+
|  1 |            1 |              2 | Backend Developer  |
|  2 |            1 |              2 | Frontend Developer |
|  3 |            2 |              1 | Product Manager    |
|  5 |            3 |              5 | Business Analyst   |
|  4 |            5 |              3 | Database Admin     |
+----+--------------+----------------+--------------------+
```

MariaDB [cs3200_hw2]> insert into `role` VALUES (NULL, NULL, 1, 'Backend Developer');
ERROR 1048 (23000): Column 'developer_id' cannot be null

MariaDB [cs3200_hw2]> insert into `role` VALUES (NULL, 1, 12, 'Backend Developer');
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`role`,
CONSTRAINT `fk_role_application_id` FOREIGN KEY (`application_id`) REFERENCES `application` (`id`) ON DELETE
CASCADE ON UPDATE CASCADE)

MariaDB [cs3200_hw2]> insert into `role` VALUES (NULL, 1, 1, 'Backend Devel');
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`role`,
CONSTRAINT `fk_role_position_name` FOREIGN KEY (`position`) REFERENCES `position` (`name`) ON DELETE CASCADE ON
UPDATE CASCADE)

```
+------------+
| Desktop OS |
+------------+
+----------+
| name     |
+----------+
| Linux    |
| Mac OS X |
| Windows  |
+----------+
+-----------+
| Mobile OS |
+-----------+
+---------------+
| name          |
+---------------+
| Android       |
| iOS           |
| Symbian       |
| Windows Phone |
+---------------+
+-------------+
| Web Browser |
+-------------+
+-------------------+
| name              |
+-------------------+
| Google Chrome     |
| Internet Explorer |
| Mozilla Firefox   |
| Opera             |
+-------------------+
```

```
+--------------------+
| Desktop Application |
+--------------------+
+----+----------------+-----------+-------+
| id | application_id | target_os | price |
+----+----------------+-----------+-------+
| 1  |              2 | Windows   | 40.00 |
| 2  |              4 | Mac OS X  |  1.00 |
+----+----------------+-----------+-------+
```

MariaDB [cs3200_hw2]> insert into `desktop_application` VALUES (NULL, 12, 'Windows', 1000.00);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails
(`cs3200_hw2`.`desktop_application`, CONSTRAINT `fk_desktop_application_application_id` FOREIGN KEY
(`application_id`) REFERENCES `application` (`id`) ON DELETE CASCADE ON UPDATE CASCADE)

MariaDB [cs3200_hw2]> insert into `desktop_application` VALUES (NULL, 1, 'Windowss', 1000.00);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails
(`cs3200_hw2`.`desktop_application`, CONSTRAINT `fk_desktop_application_desktop_os_name` FOREIGN KEY
(`target_os`) REFERENCES `desktop_os` (`name`))

```
+-------------------+
| Mobile Application |
+-------------------+
+----+----------------+-----------+-----------------+
| id | application_id | target_os | times_installed |
+----+----------------+-----------+-----------------+
| 1  |              1 | Android   |      1000000000 |
+----+----------------+-----------+-----------------+
```

MariaDB [cs3200_hw2]> insert into `mobile_application` VALUES (NULL, 12, 'Androidd', 10);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails
(`cs3200_hw2`.`mobile_application`, CONSTRAINT `fk_mobile_application_application_id` FOREIGN KEY
(`application_id`) REFERENCES `application` (`id`) ON DELETE CASCADE ON UPDATE CASCADE)

MariaDB [cs3200_hw2]> insert into `mobile_application` VALUES (NULL, 1, 'Androidd', 10);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails
(`cs3200_hw2`.`mobile_application`, CONSTRAINT `fk_mobile_application_mobile_os_name` FOREIGN KEY (`target_os`)
REFERENCES `mobile_os` (`name`))

```
+-----------------+
| Web Application |
+-----------------+

+----+----------------+---------------------------+----------------+-------------+
| id | application_id | url                       | target_browser | price       |
+----+----------------+---------------------------+----------------+-------------+
| 1  |              3 | http://www.reddit.com     | Google Chrome  |       10.00 |
| 2  |              5 | http://news.ycombinator.com | Mozilla Firefox | 90000000.00 |
+----+----------------+---------------------------+----------------+-------------+
MariaDB [cs3200_hw2]> insert into `web_application` VALUES (NULL, 12, 'http://www.example.com', 'Google Chrome',
100.00);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails
(`cs3200_hw2`.`web_application`, CONSTRAINT `fk_web_application_application_id` FOREIGN KEY (`application_id`)
REFERENCES `application` (`id`) ON DELETE CASCADE ON UPDATE CASCADE)

MariaDB [cs3200_hw2]> insert into `web_application` VALUES (NULL, 1, 'http://www.example.com', 'Googlee Chrome',
100.00);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails
(`cs3200_hw2`.`web_application`, CONSTRAINT `fk_web_application_web_browser_name` FOREIGN KEY (`target_browser`)
REFERENCES `web_browser` (`name`))
```

```
+-------+
| Model |
+-------+

+----+------------+----------------+
| id | name       | application_id |
+----+------------+----------------+
|  6 | repository |              4 |
|  3 | tweet      |              2 |
|  1 | user       |              1 |
|  2 | user       |              2 |
|  4 | user       |              3 |
+----+------------+----------------+
```

MariaDB [cs3200_hw2]> insert into `model` VALUES (NULL, 'user', 1);
ERROR 1062 (23000): Duplicate entry 'user-1' for key 'unique_model_application_id'

MariaDB [cs3200_hw2]> insert into `model` VALUES (NULL, 'user', 13);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`model`,
CONSTRAINT `fk_model_application_id` FOREIGN KEY (`application_id`) REFERENCES `application` (`id`))

```
+-----------+
| Data Type |
+-----------+

+--------+
| type   |
+--------+
| Date   |
| Number |
| Set    |
| String |
+--------+
```

```
+-----------+
| Attribute |
+-----------+
+----+----------+-----------+--------+--------------------------------+--------------------------------
+-----------+-----------------+
| id | model_id | name      | type   | string_value                   | number_value                   |
date_value | parent_attribute |
+----+----------+-----------+--------+--------------------------------+--------------------------------
+-----------+-----------------+
|  1 |        1 | email     | String | tlunter@gmail.com              |                            NULL |
NULL       |            NULL |
|  2 |        1 | password  | String | bbb2c5e63d2ef893106fdd0d797aa97a |                          NULL |
NULL       |            NULL |
|  3 |        2 | email     | String | tlunter@gmail.com              |                            NULL |
NULL       |            NULL |
|  4 |        2 | join_date | Date   | NULL                           |                            NULL |
2009-01-01 |            NULL |
|  5 |        3 | favorites | Number | NULL                           | 10.000000000000000000000000000 |
NULL       |            NULL |
+----+----------+-----------+--------+--------------------------------+--------------------------------
+-----------+-----------------+
MariaDB [cs3200_hw2]> insert into `attribute` VALUES (NULL, 12, 'key', 'String', '', NULL, NULL, NULL);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`attribute`,
CONSTRAINT `fk_attribute_model_id` FOREIGN KEY (`model_id`) REFERENCES `model` (`id`) ON DELETE CASCADE ON UPDATE
CASCADE)

MariaDB [cs3200_hw2]> insert into `attribute` VALUES (NULL, 11, 'key', 'Sdtring', '', NULL, NULL, NULL);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`attribute`,
CONSTRAINT `fk_attribute_model_id` FOREIGN KEY (`model_id`) REFERENCES `model` (`id`) ON DELETE CASCADE ON UPDATE
CASCADE)

MariaDB [cs3200_hw2]> insert into `attribute` VALUES (NULL, 11, 'key', 'String', '', NULL, NULL, 12);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`attribute`,
CONSTRAINT `fk_attribute_model_id` FOREIGN KEY (`model_id`) REFERENCES `model` (`id`) ON DELETE CASCADE ON UPDATE
CASCADE)
```

```
+------+
| View |
+------+
+----+--------------------+----------------+-------------+----------+
| id | name               | application_id | parent_view | model_id |
+----+--------------------+----------------+-------------+----------+
|  1 | tweets.html.erb    |              2 |        NULL |        3 |
|  2 | users.html.erb     |              1 |        NULL |        1 |
|  3 | users.html.erb     |              2 |        NULL |        2 |
|  4 | repositories.html.erb |           4 |        NULL |        6 |
|  5 | contributors.html.erb |           4 |           4 |        6 |
+----+--------------------+----------------+-------------+----------+
```

MariaDB [cs3200_hw2]> insert into `view` VALUES (NULL, 'tweets.html.erb', 11, NULL, 3);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`view`,
CONSTRAINT `fk_view_application_id` FOREIGN KEY (`application_id`) REFERENCES `application` (`id`) ON DELETE
CASCADE ON UPDATE CASCADE)

MariaDB [cs3200_hw2]> insert into `view` VALUES (NULL, 'tweets.html.erb', 2, NULL, 3);
ERROR 1062 (23000): Duplicate entry 'tweets.html.erb-2' for key 'unique_view_application_id'

MariaDB [cs3200_hw2]> insert into `view` VALUES (NULL, 'tweets.html.erb1', 2, 12, 3);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`view`,
CONSTRAINT `fk_view_view_id` FOREIGN KEY (`parent_view`) REFERENCES `view` (`id`) ON DELETE CASCADE ON UPDATE
CASCADE)

MariaDB [cs3200_hw2]> insert into `view` VALUES (NULL, 'tweets.html.erb1', 2, NULL, 12);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`view`,
CONSTRAINT `fk_view_model_id` FOREIGN KEY (`model_id`) REFERENCES `model` (`id`) ON DELETE SET NULL ON UPDATE
CASCADE)
```

```
+---------------+
| Event Handler |
+---------------+

+----+---------+
| id | view_id |
+----+---------+
|  1 |       1 |
|  2 |       1 |
|  3 |       2 |
+----+---------+
```

MariaDB [cs3200_hw2]> insert into `event_handler` VALUES (NULL, 12);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails
(`cs3200_hw2`.`event_handler`, CONSTRAINT `fk_event_handler_view_id` FOREIGN KEY (`view_id`) REFERENCES `view`
(`id`) ON DELETE CASCADE ON UPDATE CASCADE)

```
+------------+
| Controller |
+------------+

+----+-------------+----------------+
| id | name        | application_id |
+----+-------------+----------------+
|  4 | repositories |             4 |
|  1 | tweets      |              2 |
|  2 | users       |              1 |
|  3 | users       |              2 |
+----+-------------+----------------+
```

MariaDB [cs3200_hw2]> insert into `controller` VALUES (NULL, 'repositories', 4);
ERROR 1062 (23000): Duplicate entry 'repositories-4' for key 'unique_controller_application_id'

MariaDB [cs3200_hw2]> insert into `controller` VALUES (NULL, 'repositories', 42);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`controller`,
CONSTRAINT `fk_controller_application_id` FOREIGN KEY (`application_id`) REFERENCES `application` (`id`) ON
DELETE CASCADE ON UPDATE CASCADE)

```
+--------+
| Script |
+--------+

+----+------------+---------------+----------+-------------------+
| id | name       | controller_id | model_id | file_path         |
+----+------------+---------------+----------+-------------------+
|  1 | favorite   |             1 |        3 | favorite_tweet.pl |
|  2 | refresh    |             1 |     NULL | refresh_tweets.pl |
|  3 | add friend |             2 |        1 | add_friend.pl     |
+----+------------+---------------+----------+-------------------+

MariaDB [cs3200_hw2]> insert into `script` VALUES (NULL, 'favorite', 1, 3, '');
ERROR 1062 (23000): Duplicate entry 'favorite-1' for key 'unique_name_controller_id'

MariaDB [cs3200_hw2]> insert into `script` VALUES (NULL, 'favorite', 41, 3, '');
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`script`,
CONSTRAINT `fk_script_controller_id` FOREIGN KEY (`controller_id`) REFERENCES `controller` (`id`) ON DELETE
CASCADE ON UPDATE CASCADE)

MariaDB [cs3200_hw2]> insert into `script` VALUES (NULL, 'favorite1', 1, 10, '');
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`script`,
CONSTRAINT `fk_script_model_id` FOREIGN KEY (`model_id`) REFERENCES `model` (`id`) ON DELETE SET NULL ON UPDATE
CASCADE)
```

```
+-------+
| Event |
+-------+

+----+------------------+-----------+
| id | event_handler_id | script_id |
+----+------------------+-----------+
|  1 |                1 |         1 |
|  2 |                2 |         2 |
|  3 |                3 |         3 |
+----+------------------+-----------+
```

MariaDB [cs3200_hw2]> insert into `event` VALUES (NULL, 1, 10);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`event`,
CONSTRAINT `fk_event_script_id` FOREIGN KEY (`script_id`) REFERENCES `script` (`id`) ON DELETE CASCADE ON UPDATE
CASCADE)

MariaDB [cs3200_hw2]> insert into `event` VALUES (NULL, 10, 1);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`cs3200_hw2`.`event`,
CONSTRAINT `fk_event_event_handler_id` FOREIGN KEY (`event_handler_id`) REFERENCES `event_handler` (`id`) ON
DELETE CASCADE ON UPDATE CASCADE)

```
+--------------------------------------+
| Application - Desktop Application Join |
+--------------------------------------+
+----+-------------+-----------+----+---------------+-----------+-------+
| id | date_created | name      | id | application_id | target_os | price |
+----+-------------+-----------+----+---------------+-----------+-------+
|  2 | 2008-07-04  | TweetDeck | 1 |             2 | Windows   | 40.00 |
|  4 | 2008-04-01  | GitHub    | 2 |             4 | Mac OS X  |  1.00 |
+----+-------------+-----------+----+---------------+-----------+-------+


+--------------------------------------+
| Application - Mobile Application Join |
+--------------------------------------+
+----+-------------+----------+----+---------------+-----------+----------------+
| id | date_created | name     | id | application_id | target_os | times_installed |
+----+-------------+----------+----+---------------+-----------+----------------+
|  1 | 2004-02-04  | Facebook | 1 |             1 | Android   |     1000000000 |
+----+-------------+----------+----+---------------+-----------+----------------+


+-----------------------------------+
| Application - Web Application Join |
+-----------------------------------+
+----+-------------+------------+----+---------------+--------------------------+----------------+-------------+
| id | date_created | name       | id | application_id | url                      | target_browser | price       |
+----+-------------+------------+----+---------------+--------------------------+----------------+-------------+
|  3 | 2005-06-01  | reddit     | 1 |             3 | http://www.reddit.com    | Google Chrome  |       10.00 |
|  5 | 2007-02-19  | Hacker News | 2 |             5 | http://news.ycombinator.com | Mozilla Firefox | 90000000.00 |
+----+-------------+------------+----+---------------+--------------------------+----------------+-------------+
```

```
+------------------------------------------+
| Developer - Application - Position Join   |
+------------------------------------------+
+-----------------+-------------+--------------------+
| Developer       | Application | Position           |
+-----------------+-------------+--------------------+
| Daniel Nordness | Facebook    | Product Manager    |
| Todd Lunter     | TweetDeck   | Backend Developer  |
| Todd Lunter     | TweetDeck   | Frontend Developer |
| Tom Hulihan     | reddit      | Database Admin     |
| Rob Shore       | Hacker News | Business Analyst   |
+-----------------+-------------+--------------------+

+--------------------------+
| Model - Application Join |
+--------------------------+
+----+------------+----------------+-------------+
| id | name       | application_id | application |
+----+------------+----------------+-------------+
|  1 | user       |              1 | Facebook    |
|  3 | tweet      |              2 | TweetDeck   |
|  2 | user       |              2 | TweetDeck   |
|  4 | user       |              3 | reddit      |
|  6 | repository |              4 | GitHub      |
|  5 | user       |              4 | GitHub      |
|  7 | user       |              5 | Hacker News |
+----+------------+----------------+-------------+
```

```
+------------------------+
| View - Application Join |
+------------------------+
+----+----------------------+----------------+-------------+----------+-------------+
| id | name                 | application_id | parent_view | model_id | application |
+----+----------------------+----------------+-------------+----------+-------------+
|  2 | users.html.erb       |              1 |        NULL |        1 | Facebook    |
|  1 | tweets.html.erb      |              2 |        NULL |        3 | TweetDeck   |
|  3 | users.html.erb       |              2 |        NULL |        2 | TweetDeck   |
|  4 | repositories.html.erb |             4 |        NULL |        6 | GitHub      |
|  5 | contributors.html.erb |             4 |           4 |        6 | GitHub      |
+----+----------------------+----------------+-------------+----------+-------------+

+------------------------------+
| Controller - Application Join |
+------------------------------+
+----+-------------+----------------+-------------+
| id | name        | application_id | application |
+----+-------------+----------------+-------------+
|  2 | users       |              1 | Facebook    |
|  1 | tweets      |              2 | TweetDeck   |
|  3 | users       |              2 | TweetDeck   |
|  4 | repositories |             4 | GitHub      |
+----+-------------+----------------+-------------+
```

```
+-----------------------+
| Attribute - Model Join |
+-----------------------+
+----+----------+-------------+--------+-------------------------------+-------------------------------
+-----------+-----------------+-----------+
| id | model_id | name        | type   | string_value                  | number_value                  |
date_value | parent_attribute | model    |
+----+----------+-------------+--------+-------------------------------+-------------------------------
+-----------+-----------------+-----------+
|  1 |        1 | email       | String | tlunter@gmail.com             |                          NULL |
NULL       |            NULL | user      |
|  2 |        1 | password    | String | bbb2c5e63d2ef893106fdd0d797aa97a |                       NULL |
NULL       |            NULL | user      |
|  3 |        2 | email       | String | tlunter@gmail.com             |                          NULL |
NULL       |            NULL | user      |
|  4 |        2 | join_date   | Date   | NULL                          |                          NULL |
2009-01-01 |            NULL | user      |
|  5 |        3 | favorites   | Number | NULL                          | 10.0000000000000000000000000000 |
NULL       |            NULL | tweet     |
|  6 |        6 | permissions | Set    | NULL                          |                          NULL |
NULL       |            NULL | repository |
|  7 |        6 | create      | String | tlunter                       |                          NULL |
NULL       |               6 | repository |
|  8 |        6 | delete      | String | tlunter                       |                          NULL |
NULL       |               6 | repository |
+----+----------+-------------+--------+-------------------------------+-------------------------------
+-----------+-----------------+-----------+
```

```
+--------------------------+
| Attribute - Attribute Join |
+--------------------------+
+----+----------+--------+--------+--------------+--------------+------------+------------------
+-----------------+
| id | model_id | name   | type   | string_value | number_value | date_value | parent_attribute | parent
attribute |
+----+----------+--------+--------+--------------+--------------+------------+------------------
+-----------------+
|  7 |        6 | create | String | tlunter      |         NULL | NULL       |                6 | permissions
|
|  8 |        6 | delete | String | tlunter      |         NULL | NULL       |                6 | permissions
|
+----+----------+--------+--------+--------------+--------------+------------+------------------
+-----------------+

+-----------------+
| View - View Join |
+-----------------+
+----+----------------------+----------------+-------------+----------+----------------------+
| id | name                 | application_id | parent_view | model_id | parent view          |
+----+----------------------+----------------+-------------+----------+----------------------+
|  5 | contributors.html.erb |              4 |           4 |        6 | repositories.html.erb |
+----+----------------------+----------------+-------------+----------+----------------------+

+--------------------------------------------+
| View - Event Handler - Event - Script Join |
+--------------------------------------------+
+-----------------+---------------+-----------+
| view            | event_handler | script    |
+-----------------+---------------+-----------+
| tweets.html.erb |             1 | favorite  |
| tweets.html.erb |             2 | refresh   |
| users.html.erb  |             3 | add friend |
+-----------------+---------------+-----------+
```

```
+------------------------+
| Script - Controller Join |
+------------------------+
+----+-----------+---------------+----------+------------------+-----------+
| id | name      | controller_id | model_id | file_path        | controller |
+----+-----------+---------------+----------+------------------+-----------+
|  1 | favorite  |             1 |        3 | favorite_tweet.pl | tweets    |
|  2 | refresh   |             1 |     NULL | refresh_tweets.pl | tweets    |
|  3 | add friend |            2 |        1 | add_friend.pl    | users     |
+----+-----------+---------------+----------+------------------+-----------+


+--------------------------------+
| Script - Controller - Model Join |
+--------------------------------+
+----+-----------+---------------+----------+------------------+-----------+-------+
| id | name      | controller_id | model_id | file_path        | controller | model |
+----+-----------+---------------+----------+------------------+-----------+-------+
|  1 | favorite  |             1 |        3 | favorite_tweet.pl | tweets    | tweet |
|  2 | refresh   |             1 |     NULL | refresh_tweets.pl | tweets    | NULL  |
|  3 | add friend |            2 |        1 | add_friend.pl    | users     | user  |
+----+-----------+---------------+----------+------------------+-----------+-------+
```