# Programming assignment:

# A video game with a database-backed leaderboard

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| Next we continue with the creation of the database and inserting scores. Every time a user plays the game, when the game is over, a new record must be added to the database that includes the player’s name, the score, and what hero they used. Setting up the table in SQL is the goal of Task 2. | Space Invaders screenshot |

**INVADERS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **player** | **hero** | **gametime** | **score** |
| 1 | crono | 1 | 2017-11-14 12:17:01 | 50 |
| 2 | crono | 2 | 2017-11-14 12:17:01 | 470 |
| 3 | marle | 3 | 2017-11-14 12:17:01 | 320 |
| 4 | lucca | 2 | 2017-11-14 12:17:01 | 5630 |
| 5 | crono | 1 | 2017-11-14 12:17:01 | 480 |

## Task 2: Create and insert

1. You need to create the table on the database server. You can use PhpMiniAdmin or PhpMyAdmin. As you can see from the example above, there are 5 columns.
   1. We need a data type for each column. I think you know how to figure most of them out. The only new one is gametime. The correct type for this is called TIMESTAMP.
   2. We will rely on the DBMS to provide the value for gametime each time a new record is added. To do that, we provide a default value using CURRENT\_TIMESTAMP.
   3. We will also rely on the DBMS to provide the value for the id column. We use a feature called AUTO\_INCREMENT. It automatically creates ID numbers every time you add a record. Since we haven’t seen this before, I’ll show you how to do it:

CREATE TABLE invaders (

id INT NOT NULL AUTO\_INCREMENT,

player VARCHAR(20) NOT NULL,

hero INT NOT NULL,

gametime TIMESTAMP NOT NULL DEFAULT CURRENT\_TIMESTAMP,

score INT NOT NULL,

PRIMARY KEY (id)

) ENGINE=InnoDB

1. Now when you insert, you only need to specify the player, the hero, and the score. So your insert commands will look something like this:

INSERT

INTO invaders (player, hero, score)

VALUES ('crono', 1, 50)

1. Try it out in PhpMiniAdmin to see how auto increment and the timestamp work. Add rows like in the example table above.