# PROJECT REPORT

**TOPIC: MINING STOCK MARKET**

*Submitted in partial fulfilment of the requirements for the award of degree of*

**Bachelor of Technology in Computer Science & Engineering**

**UE20CS301 – DBMS Project**


***Submitted by:***

***BHARATH B REDDY  PES2UG20CS802***

Under the guidance of

**Prof. Nivedita Kasturi**

Assistant Professor

Designation

PES University


**AUG - DEC 2022**


FACULTY OF ENGINEERING

**PES UNIVERSITY**

(Established under Karnataka Act No. 16 of 2013)

Electronic City, Hosur Road, Bengaluru – 560 100, Karnataka, India

# PES UNIVERSITY

(Established under Karnataka Act No. 16 of 2013)

Electronic City, Hosur Road, Bengaluru – 560 100, Karnataka, India

# CERTIFICATE

*This is to certify that the mini project entitled*

**MINING STOCK MARKET**

*is a Bonafede work carried out by*

**BHARATH B REDDY PES2UG20CS802**

In partial fulfilment for the completion of fifth semester DBMS Project (UE20CSS301) in the Program of Study -Bachelor of Technology in Computer Science and Engineering under rules and regulations of PES University, Bengaluru during the period AUG. 2022 – DEC. 2022. It is certified that all corrections / suggestions indicated for internal assessment have been incorporated in the report. The project has been approved as it satisfies the 5th semester academic requirements in respect of project work.

Signature

Prof. Nivedita Kasturi

Assistant Professor

# DECLARATION

We hereby declare that the DBMS Project entitled **MINING STOCK MARKET** has been carried out by us under the guidance of **Prof. Nivedita Kasturi, Assistant Professor** and submitted in partial fulfilment of the course requirements for the award of degree of **Bachelor of Technology** in **Computer Science and Engineering** of **PES University, Bengaluru** during the academic semester AUG – DEC 2022.

**BHARATH B REDDY  PES2UG20CS802**

# ACKNOWLEDGEMENT

I would like to express my gratitude to Prof. Nivedita Kasturi, Department of Computer Science and Engineering, PES University, for her continuous guidance, assistance, and encouragement throughout the development of this UE20CS301 - DBMS Project.

I take this opportunity to thank Dr. Sandesh B J, C, Professor, Chair Person, Department of Computer Science and Engineering, PES University, for all the knowledge and support I have received from the department.

I am deeply grateful to Dr. M. R. Doreswamy, Chancellor, PES University, Prof. Jawahar Doreswamy, Pro Chancellor – PES University, Dr. Suryaprasad J, Vice-Chancellor, PES University for providing to me various opportunities and enlightenment every step of the way. Finally, this DBMS Project could not have been completed without the continual support and encouragement I have received from my family and friends.

# ABSTRACT

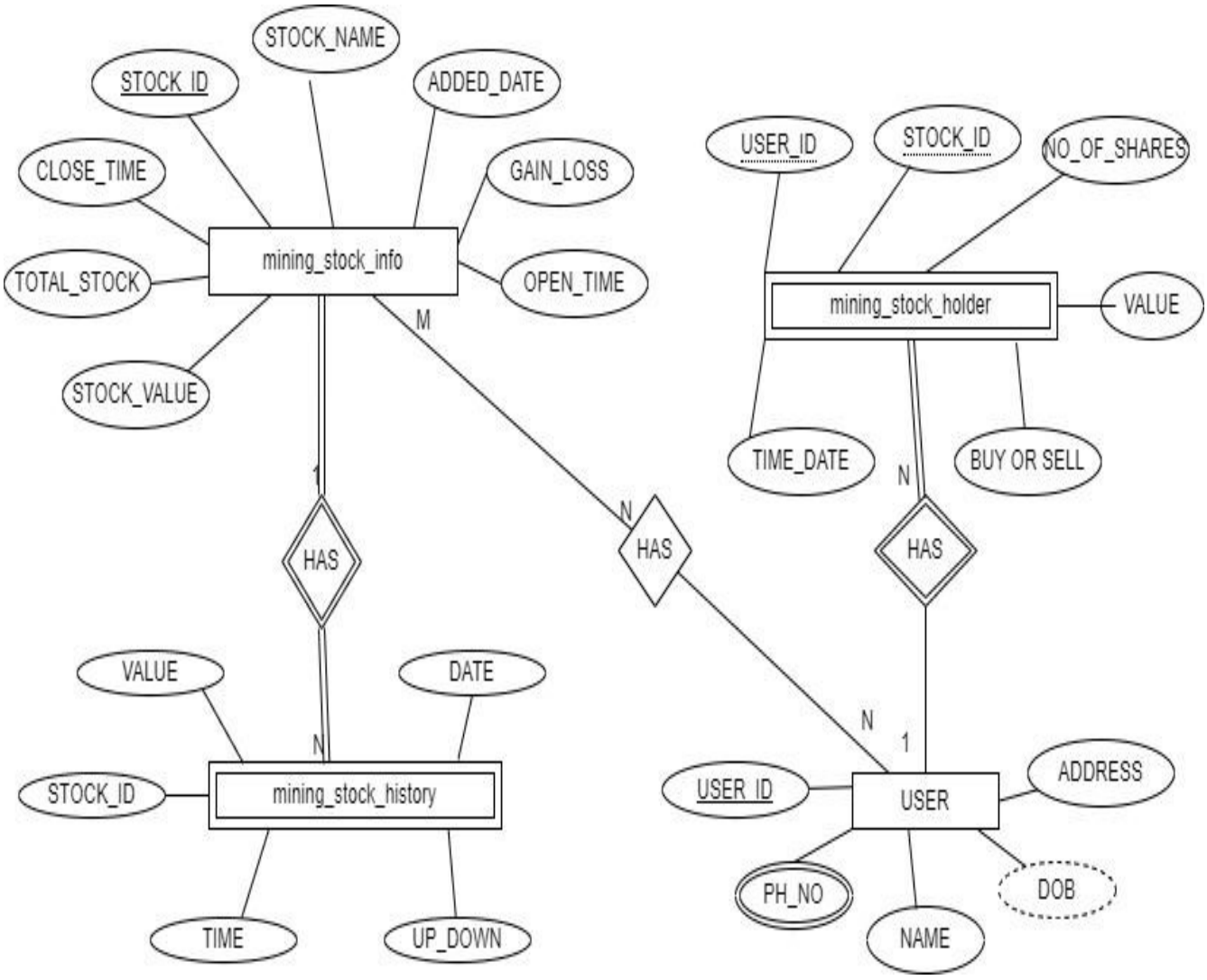
This report is a summary of the study that was undertaken to design and implement a **Stock Management System** in **PHP** and **MySQL Database**. This is a web-based application that provides an online and automated platform for shops or businesses. This project can manage the company's Purchase Orders, Receiving, Back Orders, returns, and Sales Records. The application has a pleasant user interface with the help of Bootstrap Library and AdminLTE template. This has also user-friendly functionalities.

# TABLE OF CONTENTS

# 1. INTRODUCTION

Mining Stock Market in an application of Database Management System which is used for storing information and details of all those associated with Buying and selling of stocks. Mining Stock market is a process of managing and locating objector materials. In common usage, the term may also refer to just the software components. According to (Kotler, 2000), stock management refers to all the activities involved in developing and managing the stock levels of raw materials, semi-finished materials (work-in- progress) and finished good so that adequate supplies are available and the costs of over or under stocks are low. (Rosenblatt, 1977) says: “The cost of maintaining stock is included in the final price paid by the consumer. Good in stock represents a cost to their owner. The manufacturer has the expense of materials and labour. The wholesaler also has funds tied up”. Therefore, the basic goal of the researchers is to maintain a level of stock that will provide optimum stock at lowest cost.

# 2. ER MODEL


STOCK_NAME
STOCK ID
ADDED_DATE
CLOSE_TIME
GAIN_LOSS
mining_stock_info
TOTAL_STOCK
OPEN_TIME
STOCK_VALUE
M
1
HAS
N
HAS
USER_ID
STOCK_ID
NO_OF_SHARES
mining_stock_holder
VALUE
TIME_DATE
N
BUY OR SELL
HAS
VALUE
DATE
N
1
STOCK_ID
mining_stock_history
USER_ID
USER
ADDRESS
PH_NO
DOB
TIME
UP_DOWN
NAME

## 3. ER TO RELATIONAL MAPPING

③ Mapping of 1:1 relationship types

Assumption: Since there is no 1:1 relation between the entities

⑤ Mapping of 1:N relationship types

| user_id | stock_ssn_id |
|---|---|

④ Mapping of 1:N Relationship type

Assumption: since there are no 1:N relation with respect to entities.

⑥ Mapping of multivalued attributes

| user_id | pho_no |
|---|---|

⑦ Mapping of n-array Relationships types

Assumption :- There are no such relation in this ER model

# 4. DDL STATEMENTS

## STATEMENTS WITH SCREEN SHOTS OF THE TABLE CREATION

### Create Statements:

```
CREATE TABLE `user` (
  `user_id` int(50) NOT NULL,
  `F_name` char(15) NOT NULL,
  `M_name` char(10) NOT NULL,
  `L_name` char(10) NOT NULL,
  `city` char(25) NOT NULL,
  `state` char(20) NOT NULL,
  `country` char(20) NOT NULL,
  `pincode` bigint(50) NOT NULL,
  `age` int(50) NOT NULL,
  `DOB` date NOT NULL,
  `password` int(11) NOT NULL,
  `email` text NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
CREATE TABLE `mining_stock_info` (
  `Stock_id` int(50) NOT NULL,
  `Stock_name` char(50) NOT NULL,
  `Total_stocks` bigint(11) NOT NULL,
  `Gain_loss` int(50) NOT NULL,
  `Added_date` year(4) NOT NULL,
  `open_time` datetime(6) NOT NULL,
  `close_time` datetime(6) NOT NULL,
  `value` double NOT NULL,
  `last_time_value` int(50) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COMMENT='this table contains the information
about , stock information of stock inform';
```

```sql
CREATE TABLE `mining_stock_holders` (
  `user_id` int(50) NOT NULL,
  `Stock_id` int(50) NOT NULL,
  `No_of_shares` int(100) NOT NULL,
  `Value` int(50) NOT NULL,
  `Buy_Sell` tinyint(1) NOT NULL,
  `Time_date` datetime NOT NULL DEFAULT current_timestamp(),
  `Stock_name` varchar(50) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```sql
CREATE TABLE `mining_stock_history` (
  `Date` date NOT NULL DEFAULT current_timestamp(),
  `Stck_id` int(50) NOT NULL,
  `No_of_shares` int(100) NOT NULL,
  `S_Value` int(50) NOT NULL,
  `Up_Down` tinyint(1) NOT NULL,
  `Stock_name` varchar(50) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```sql
CREATE TABLE `user_has_stocks` (
  `user_ssn_id` int(50) NOT NULL,
  `stock_ssn_id` int(50) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```sql

CREATE TABLE `user_phone_no` (
  `user_id` int(50) NOT NULL,
  `phone_no` varchar(50) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
-- Indexes for table `user`
--
ALTER TABLE `user`
  ADD PRIMARY KEY (`user_id`);

--
-- Indexes for table `users`
--
ALTER TABLE `users`
  ADD PRIMARY KEY (`id`);

--
-- Indexes for table `user_has_stocks`
--
ALTER TABLE `user_has_stocks`
  ADD KEY `user_id` (`user_ssn_id`),
  ADD KEY `stk_id_fk` (`stock_ssn_id`);

--
-- Indexes for table `user_phone_no`
--
ALTER TABLE `user_phone_no`
  ADD KEY `phone_no` (`user_id`);

--
-- AUTO_INCREMENT for dumped tables
--


--
-- AUTO_INCREMENT for table `users`
--
ALTER TABLE `users`
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=6;

--
```

Adding Constraints:

```
Constraints for table `mining_stock_holders`
--
ALTER TABLE `mining_stock_holders`
```

```
  ADD CONSTRAINT `stock_id` FOREIGN KEY (`Stock_id`) REFERENCES `mining_stock_info`
(`Stock_id`),
  ADD CONSTRAINT `u_id` FOREIGN KEY (`user_id`) REFERENCES `user` (`user_id`);

--
-- Constraints for table `user_has_stocks`
--
ALTER TABLE `user_has_stocks`
  ADD CONSTRAINT `stk_id_fk` FOREIGN KEY (`stock_ssn_id`) REFERENCES
`mining_stock_info` (`Stock_id`) ON DELETE CASCADE ON UPDATE CASCADE,
  ADD CONSTRAINT `user_id` FOREIGN KEY (`user_ssn_id`) REFERENCES `user` (`user_id`)
ON DELETE CASCADE ON UPDATE CASCADE;

--
-- Constraints for table `user_phone_no`
--
ALTER TABLE `user_phone_no`
  ADD CONSTRAINT `phone_no` FOREIGN KEY (`user_id`) REFERENCES `user` (`user_id`);
COMMIT;
```

# 5. DML STATEMENTS

## STATEMENTS WITH SCREEN SHOTS OF THE TABLE WITH INSERTED VALUES

```
INSERT INTO `user` (`user_id`, `F_name`, `M_name`, `L_name`, `city`, `state`,
`country`, `pincode`, `age`, `DOB`, `password`, `email`) VALUES
(1, 'Emma', 'Peter', 'Mallory', 'Firozabad', 'Andaman And nicobar', 'india',
206987, 22, '2013-01-21', 123, ''),
(2, 'Davis', 'Ware', 'Rich', 'Navi Mumbai', 'Arunachal Pradesh', 'india',
144252, 26, '2022-08-24', 321, ''),
(3, 'Ivan', 'Tara', 'Jason', 'Bihar', 'gujarath', 'india', 818902, 43, '2017-
09-09', 456, ''),
(4, 'Vega', 'Beasley', 'Richardson', 'Mira-Bhayandar', 'Chhattisgarh',
'india', 904953, 21, '2011-03-17', 0, ''),
(5, 'Melissa', 'Christophe', 'Shelly', 'Daman And diu', 'kerala', 'india',
462998, 23, '2022-10-27', 0, ''),
(6, 'Joseph', 'Russell', 'Santiago', 'Chennai', 'Goa', 'india', 289912, 20,
'2010-05-18', 0, ''),
(7, 'Michael', 'Sean', 'Sara', 'Haryana', 'assam', 'india', 637662, 26, '2013-
04-22', 0, ''),
(8, 'Bautista', 'Wong', 'Perez', 'Panchkula', 'Jammu And kashmir', 'india',
380853, 22, '2015-05-20', 0, ''),
(9, 'Richard', 'Steven', 'Victoria', 'Pune', 'Karnataka', 'india', 188239, 57,
'2018-05-01', 0, ''),
(10, 'Brown', 'Harris', 'Mcguire', 'Meerut', 'Lakshadweep', 'india', 629188,
28, '2023-06-08', 0, ''),
(11, 'Katie', 'Christian', 'Destiny', 'Madanapalle', 'Maharashtra', 'india',
295486, 27, '2018-12-11', 0, ''),
(12, 'Hodges', 'Copeland', 'Galloway', 'Allahabad', 'Meghalaya', 'india',
878837, 21, '2021-07-30', 0, ''),
(13, 'Jeffrey', 'Sharon', 'Dawn', 'Kozhikode', 'Nagaland', 'india', 427868,
30, '2015-09-12', 0, ''),
(14, 'Bates', 'Oliver', 'Brown', 'Parbhani', 'Puducherry', 'india', 473236,
40, '2019-12-09', 0, ''),
(15, 'Bryce', 'Joshua', 'Krista', 'Ratlam', 'Rajasthan', 'india', 319194, 50,
'2011-03-13', 0, '');
```

```
INSERT INTO `mining_stock_info` (`Stock_id`, `Stock_name`, `Total_stocks`,
`Gain_loss`, `Added_date`, `open_time`, `close_time`, `value`,
`last_time_value`) VALUES
(1, 'Gold', 7566396, 0, 2016, '2022-11-15 08:45:20.000000', '2023-01-11
07:27:59.000000', 786.2, 1037),
```

```
(2, 'silver', 1312342, 1, 2020, '2022-02-21 11:50:33.000000', '2022-03-10
12:55:20.000000', 300, 841),
(3, 'silvers', 708434, 1, 2010, '2022-02-21 03:50:33.000000', '2022-03-08
12:55:54.000000', 400.55, 2209),
(4, 'reddys', 9, 0, 2023, '2022-01-12 11:26:42.000000', '2022-02-02
07:56:19.000000', 1887.7, 964),
(5, 'HOEC', 1104283, 1, 2019, '2022-01-15 07:11:14.000000', '2022-02-08
12:56:39.000000', 2435, 1743),
(6, 'Exxon Mobil', 8966396, 0, 2013, '2022-02-08 11:25:31.000000', '2022-03-11
07:56:56.000000', 745.98, 1012),
(7, 'Hindustan gold', 16700, 0, 2017, '2022-02-10 06:47:54.000000', '2022-03-
17 10:57:16.000000', 5648.52, 1883),
(8, 'castrol mining', 1360600, 1, 2010, '2022-01-24 03:48:06.000000', '2022-
02-09 04:57:50.000000', 400, 2627),
(9, 'Mango pvt', 210140, 0, 2022, '2022-11-26 10:48:29.000000', '2023-01-03
10:58:18.000000', 4563.6, 1830),
(10, 'Imperial gold mins', 708434, 1, 2017, '2022-11-09 08:48:54.000000',
'2023-01-04 13:01:13.000000', 854.34, 810),
(11, 'Asian', 3, 1, 2012, '2022-02-14 09:49:02.000000', '2022-02-25
05:59:24.000000', 3773.662, 1644),
(12, 'Continent Petro', 1104283, 0, 2010, '2022-02-18 17:49:45.000000', '2022-
02-19 07:00:01.000000', 476, 1516),
(13, 'Selan Explore', 8966396, 0, 2010, '2022-02-07 16:00:00.000000', '2022-
02-23 08:00:19.000000', 4274.062, 2358),
(14, 'Jindal Drilling', 6543600, 1, 2019, '2022-03-19 09:50:14.000000', '2022-
03-31 00:00:00.000000', 678, 2921),
(15, 'Aban Offshore', 1360600, 1, 2017, '2022-02-21 07:50:33.000000', '2022-
02-25 02:00:51.000000', 4774.462, 1084);
```

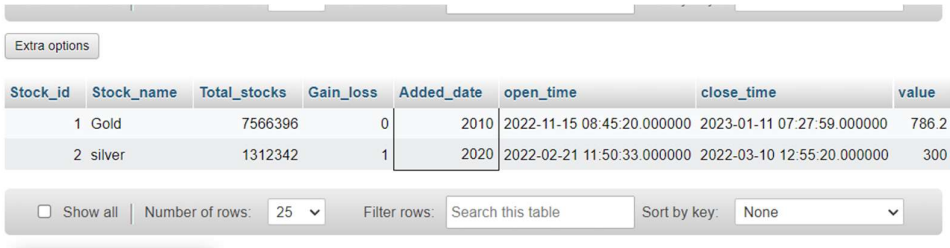
```
INSERT INTO `mining_stock_holders` (`user_id`, `Stock_id`, `No_of_shares`,
`Value`, `Buy_Sell`, `Time_date`, `Stock_name`) VALUES
(1, 1, 10, 12345, 0, '2022-11-20 18:13:12', 'ad'),
(2, 7, 20, 12, 0, '2022-11-20 18:32:39', 'ad'),
(3, 5, 10, 12345, 1, '2022-11-20 18:31:38', 'ad'),
(15, 8, 10, 786, 1, '2022-11-19 16:47:54', 'ad');
```

```
INSERT INTO `mining_stock_history` (`Date`, `Stck_id`, `No_of_shares`,
`S_Value`, `Up_Down`, `Stock_name`) VALUES
('2022-11-19', 8, 10, 786, 0, 'ad'),
('2022-11-20', 15, 10, 12345, 0, 'ad'),
('2022-11-20', 5, 10, 12345, 0, 'ad'),
('2022-11-20', 7, 10, 12345, 0, 'ad');
```

# 6. QUERIES

1. **Retrieving the users stock info those who having year between 2010 and 2020.**

   select * FROM `mining_stock_info` where YEAR(`Added_date`)=(2010) UNION select * FROM `mining_stock_info` where YEAR(`Added_date`)=(2020);



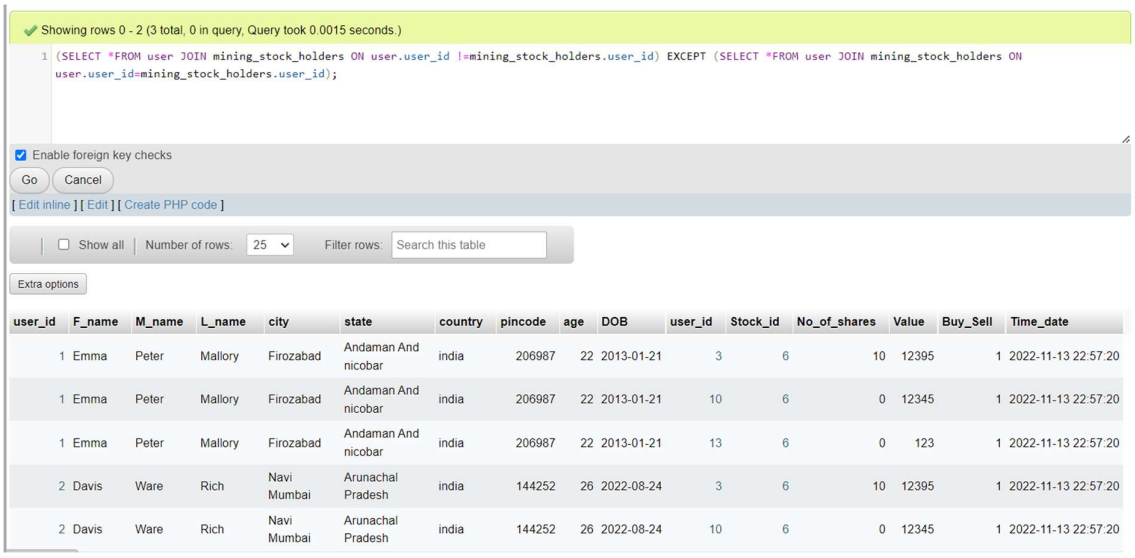
Extra options

| Stock_id | Stock_name | Total_stocks | Gain_loss | Added_date | open_time | close_time | value | last_time_value |
|---|---|---|---|---|---|---|---|---|
| 1 | Gold | 7566396 | 0 | 2010 | 2022-11-15 08:45:20.000000 | 2023-01-11 07:27:59.000000 | 786.2 | 1037 |
| 2 | silver | 1312342 | 1 | 2020 | 2022-02-21 11:50:33.000000 | 2022-03-10 12:55:20.000000 | 300 | 841 |

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

## 2.Retrieve the users who has not buy any stocks.Using Minus Operation.

(SELECT *FROM user JOIN mining_stock_holders ON user.user_id !=mining_stock_holders.user_id) EXCEPT (SELECT *FROM user JOIN mining_stock_holders ON user.user_id=mining_stock_holders.user_id);



Showing rows 0 - 2 (3 total, 0 in query, Query took 0.0015 seconds.)

```
(SELECT *FROM user JOIN mining_stock_holders ON user.user_id !=mining_stock_holders.user_id) EXCEPT (SELECT *FROM user JOIN mining_stock_holders ON
user.user_id=mining_stock_holders.user_id);
```

Enable foreign key checks

Go Cancel

[ Edit inline ] [ Edit ] [ Create PHP code ]

Show all | Number of rows: 25 Filter rows: Search this table

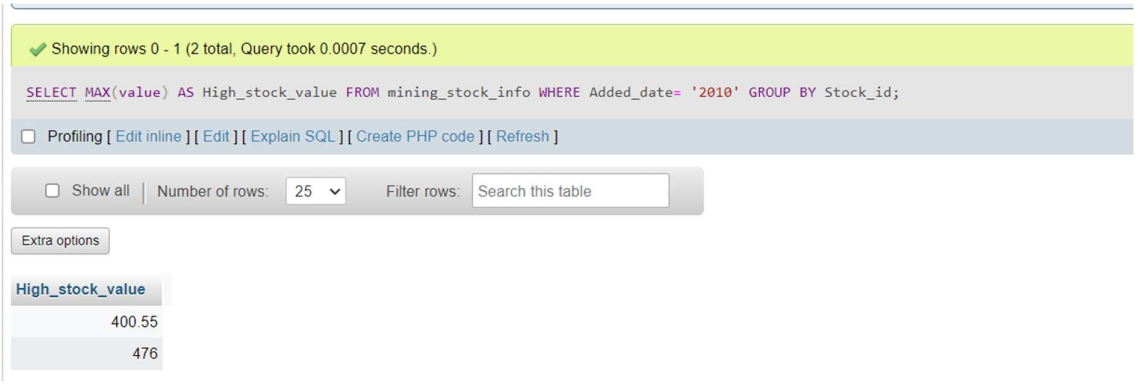
Extra options

| user_id | F_name | M_name | L_name | city | state | country | pincode | age | DOB | user_id | Stock_id | No_of_shares | Value | Buy_Sell | Time_date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Emma | Peter | Mallory | Firozabad | Andaman And nicobar | india | 206987 | 22 | 2013-01-21 | 3 | 6 | 10 | 12395 | 1 | 2022-11-13 22:57:20 |
| 1 | Emma | Peter | Mallory | Firozabad | Andaman And nicobar | india | 206987 | 22 | 2013-01-21 | 10 | 6 | 0 | 12345 | 1 | 2022-11-13 22:57:20 |
| 1 | Emma | Peter | Mallory | Firozabad | Andaman And nicobar | india | 206987 | 22 | 2013-01-21 | 13 | 6 | 0 | 123 | 1 | 2022-11-13 22:57:20 |
| 2 | Davis | Ware | Rich | Navi Mumbai | Arunachal Pradesh | india | 144252 | 26 | 2022-08-24 | 3 | 6 | 10 | 12395 | 1 | 2022-11-13 22:57:20 |
| 2 | Davis | Ware | Rich | Navi Mumbai | Arunachal Pradesh | india | 144252 | 26 | 2022-08-24 | 10 | 6 | 0 | 12345 | 1 | 2022-11-13 22:57:20 |

## Aggregate query:

## 3)Displaying the highest stock value by there added date ,Stock id

SELECT MAX(value) AS High_stock_value FROM mining_stock_info WHERE Added_date= '2010' GROUP BY Stock_id;




### 4. Display the Number of stocks and with there gain and lose of stocks only if stock have greater then 5

SELECT COUNT(Stock_id) ,Gain_loss

FROM mining_stock_info

HAVING COUNT(Stock_id) > 5

ORDER BY COUNT(Stock_id) DESC;


## Co-related and nested :

### 5. Display the user laname and dob who’’s have stock value is more then 900

SELECT u.L_name , u.DOB

FROM user AS u

WHERE EXISTS (SELECT Stock_id

FROM mining_stock_holders AS SH

WHERE SH.Stock_id = SH.Stock_id AND VALUE > 900);


Extra options

| L_name | DOB |
|---|---|
| Mallory | 2013-01-21 |
| Rich | 2022-08-24 |
| Jason | 2017-09-09 |
| Richardson | 2011-03-17 |
| Shelly | 2022-10-27 |
| Santiago | 2010-05-18 |
| Sara | 2013-04-22 |
| Perez | 2015-05-20 |
| Victoria | 2018-05-01 |
| Mcguire | 2023-06-08 |
| Destiny | 2018-12-11 |
| Galloway | 2021-07-30 |
| Dawn | 2015-09-12 |
| Brown | 2019-12-09 |
| Krista | 2011-03-13 |

## 7. STORED PROCEDURES, FUCNTIONS AND TRIGGERS

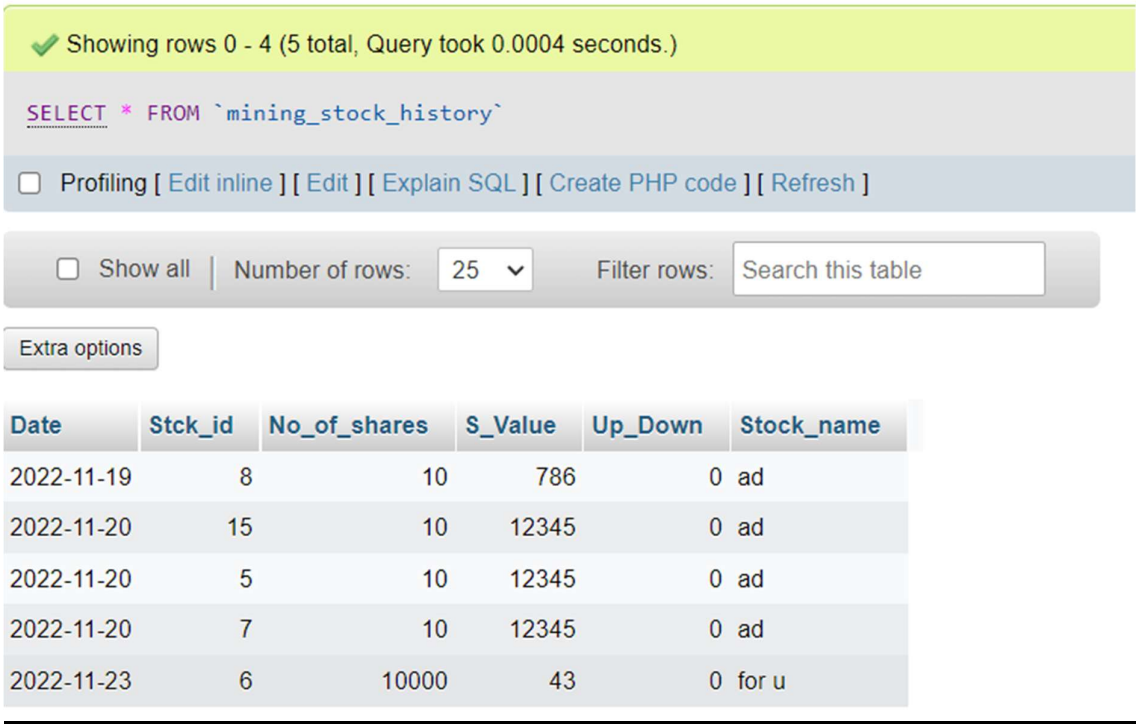
## TRIGGERS

**Write trigger to insert into mining_stocks_holders tables when value of stock is updated In mining_stock_holders.**

CREATE TRIGGER `history` AFTER INSERT ON `mining_stock_holders`

FOR EACH ROW INSERT INTO mining_stock_history (Stck_id,No_of_shares, S_Value,Stock_name) VALUES (new.Stock_id,new.No_of_shares,new.Value,new.Stock_name)

## Values before trigger activated




| Date | Stck_id | No_of_shares | S_Value | Up_Down | Stock_name |
|---|---|---|---|---|---|
| 2022-11-19 | 8 | 10 | 786 | 0 | ad |
| 2022-11-20 | 15 | 10 | 12345 | 0 | ad |
| 2022-11-20 | 5 | 10 | 12345 | 0 | ad |
| 2022-11-20 | 7 | 10 | 12345 | 0 | ad |
| 2022-11-23 | 6 | 10000 | 43 | 0 | for u |

---

**Value is updated in stocks and trigger get activated and inserts row into stocks_history table.**

## Values after trigger activated

Showing rows 0 - 5 (6 total, Query took 0.0003 seconds.)

```
SELECT * FROM `mining_stock_history`
```

Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

Show all | Number of rows: 25 Filter rows: Search this table

Extra options

| Date | Stck_id | No_of_shares | S_Value | Up_Down | Stock_name |
|---|---|---|---|---|---|
| 2022-11-19 | 8 | 10 | 786 | 0 | ad |
| 2022-11-20 | 15 | 10 | 12345 | 0 | ad |
| 2022-11-20 | 5 | 10 | 12345 | 0 | ad |
| 2022-11-20 | 7 | 10 | 12345 | 0 | ad |
| 2022-11-23 | 6 | 10000 | 43 | 0 | for u |
| 2022-11-23 | 3 | 22 | 76 | 0 | 12 |

---

**Edit**

**Details**

Trigger name: history

Table: mining_stock_holders

Time: AFTER

Event: INSERT

Definition:

```
1 INSERT INTO mining_stock_history (Stck_id,No_of_shares,
S_Value,Stock_name) VALUES
(new.Stock_id,new.No_of_shares,new.Value,new.Stock_name)
```

Definer: root@localhost

Go Close

# Store Procedure:

**Write a Store procedure to display the mining_name based on how many no_of_shares they have with repective Added_date..**

```
DELIMITER $$

CREATE DEFINER=`root`@`localhost` PROCEDURE `ase`(IN `Added_date` YEAR(4))

BEGIN

SELECT mining_stock_info.Stock_name,mining_stock_holders.No_of_shares FROM
mining_stock_info LEFT OUTER JOIN  mining_stock_holders ON
mining_stock_info.Stock_id=mining_stock_holders.Stock_id WHERE
YEAR(mining_stock_info.Added_date)= YEAR(Added_date);

END$$

DELIMITER ;
```

```
SET @p0='2010'; CALL `ase`(@p0);
```

Execution results of routine `ase`

| Stock_name | No_of_shares |
|---|---|
| silvers | 22 |
| castrol mining | *NULL* |
| Continent Petro | *NULL* |
| Selan Explore | *NULL* |

Routines

Check all | Export | Drop

| | Name | Type | Returns | |
|---|---|---|---|---|
| ☐ | ase | PROCEDURE | | Edit Execute Export Drop |

# 8.FRONT END DEVELOPEMNT

## Output:

### Mining_stock

Enter Year to search

search data

| Stock_name | No_of_shares |
|---|---|
| silvers | 22 |
| castrol mining | |
| Continent Petro | |
| Selan Explore | |