

Задание 1

```
2
3  CREATE FUNCTION Calculator(
4      Opd1 BIGINT,
5      Opd2 BIGINT,
6      Oprt CHAR(1)
7
8      JRNS BIGINT
9      ERMINISTIC
10     IN
11     DECLARE Result BIGINT;
12
13     SET Result = CASE Oprt
14         WHEN '+' THEN Opd1 + Opd2
15         WHEN '-' THEN Opd1 - Opd2
16         WHEN '*' THEN Opd1 * Opd2
17         WHEN '/' THEN
18             IF(Opd2 <> 0, Opd1 / Opd2, 0)
19             ELSE 0
20         END;
21
22     RETURN Result;
23     //
24
25    IMITER ;
26
27
28
29 •    ECT Calculator(10, 5, '+') AS Result;
30
```

Задание 2

```
1 DELIMITER //
2
3
4
5 • CREATE PROCEDURE DYNTAB (
6     IN dept_id INT
7 )
8 BEGIN
9
10     SELECT idSeller, Surname, FirstName
11     FROM Sellers
12     WHERE Department_id = dept_id;
13
14 END //
15
16 DELIMITER ;
17 • CALL DYNTAB(1);
```

#	idSeller	Surname	FirstName
1		Иванов	Антон...
2		Абрамов	Андрей
3		Антонов	Антон

Задание 3

MySQL Workbench

Local instance 3306 - Warning - not supported

File Edit View Query Database Server Tools Scripting Help

Schemas

Query 4

```
3     IN input_string VARCHAR(500)
4
5     BEGIN
6         DECLARE pos INT;
7         DECLARE sub_str VARCHAR(255);
8         CREATE TEMPORARY TABLE IF NOT EXISTS temp_words (
9             Number INT AUTO_INCREMENT PRIMARY KEY,
10            Substr VARCHAR(255));
11        );
12        TRUNCATE TABLE temp_words;
13        WHILE CHAR_LENGTH(input_string) > 0 DO
14            SET pos = LOCATE(' ', input_string);
15            IF pos > 0 THEN
16                SET sub_str = SUBSTRING(input_string, 1, pos - 1);
17                SET input_string = SUBSTRING(input_string, pos + 1);
18            ELSE
19                SET sub_str = input_string;
20                SET input_string = '';
21            END IF;
22            IF sub_str <> '' THEN
23                INSERT INTO temp_words (Substr) VALUES (sub_str);
24            END IF;
25        END WHILE;
26        SELECT * FROM temp_words;
27    END //
28 DELIMITER ;
29 • CALL Parse('SQL Server 2008');
```

Result 1

#	Number Substr
1	SOL
2	Server
3	2000

Query Completed

Задание 4

MySQL Workbench

Local instance 3306 - Warning - not supported

File Edit View Query Database Server Tools Scripting Help

Schemas

Query 4

```
3     IN input_string VARCHAR(500)
4
5     BEGIN
6         DECLARE pos INT;
7         DECLARE sub_str VARCHAR(255);
8         CREATE TEMPORARY TABLE IF NOT EXISTS temp_words (
9             Number INT AUTO_INCREMENT PRIMARY KEY,
10            Substr VARCHAR(255));
11        );
12        TRUNCATE TABLE temp_words;
13        WHILE CHAR_LENGTH(input_string) > 0 DO
14            SET pos = LOCATE(' ', input_string);
15            IF pos > 0 THEN
16                SET sub_str = SUBSTRING(input_string, 1, pos - 1);
17                SET input_string = SUBSTRING(input_string, pos + 1);
18            ELSE
19                SET sub_str = input_string;
20                SET input_string = '';
21            END IF;
22            IF sub_str <> '' THEN
23                INSERT INTO temp_words (Substr) VALUES (sub_str);
24            END IF;
25        END WHILE;
26        SELECT * FROM temp_words;
27    END //
28 DELIMITER ;
29 • CALL Parse('SQL Server 2008');
```

Result 1

#	Number Substr
1	SOL
2	Server
3	2000

Query Completed

Задание 5

The screenshot shows the MySQL Workbench interface with a query editor titled "Query 4". The code in the editor is as follows:

```
DELIMITER //
CREATE FUNCTION Calculator(
    Opd1 BIGINT,
    Opd2 BIGINT,
    Oprt CHAR()
)
RETURNS BIGINT
DETERMINISTIC
BEGIN
    DECLARE Result BIGINT;
    SET Result = CASE Oprt
        WHEN '+' THEN Opd1 + Opd2
        WHEN '-' THEN Opd1 - Opd2
        WHEN '*' THEN Opd1 * Opd2
        WHEN '/' THEN IF(Opd2 >= 0, Opd1 / Opd2, 0)
        WHEN '%' THEN MOD(Opd1, Opd2)
        ELSE 0
    END;
    RETURN Result;
END //
DELIMITER ;
SELECT Calculator(2, 3, '+') AS Power_Result;
```

The result pane shows a single row with the value 8.

Задание 6

The screenshot shows the MySQL Workbench interface with a query editor titled "Query 4". The code in the editor is as follows:

```
GRANT EXECUTE ON FUNCTION Shop.Calculator TO 'root'@'localhost';
```

Задание 7

The screenshot shows the MySQL Workbench interface with a query editor titled "Query 4". The code in the editor is:

```
1 DELIMITER //
2 • CREATE PROCEDURE Proc_Calculator(
3     IN Opd1 BIGINT,
4     IN Opd2 BIGINT,
5     IN Oprt CHAR(1),
6     OUT Result BIGINT
7 )
8 BEGIN
9     SET Result = CASE Oprt
10        WHEN '+' THEN Opd1 + Opd2
11        WHEN '-' THEN Opd1 - Opd2
12        WHEN '*' THEN Opd1 * Opd2
13        WHEN '/' THEN IF(Opd2 >= 0, Opd1 / Opd2, 0)
14        ELSE 0
15    END;
16 END //
17 DELIMITER ;
18 • CALL Proc_Calculator(10, 5, '**', @res);
19 • SELECT @res;
```

The result grid below shows one row with the value 50.

Задание 8

The screenshot shows the MySQL Workbench interface with a query editor titled "Query 4". The code in the editor is identical to the one in the first screenshot:

```
1 DELIMITER //
2 • CREATE PROCEDURE Proc_Calculator(
3     IN Opd1 BIGINT,
4     IN Opd2 BIGINT,
5     IN Oprt CHAR(1),
6     OUT Result BIGINT
7 )
8 BEGIN
9     SET Result = CASE Oprt
10        WHEN '+' THEN Opd1 + Opd2
11        WHEN '-' THEN Opd1 - Opd2
12        WHEN '*' THEN Opd1 * Opd2
13        WHEN '/' THEN IF(Opd2 >= 0, Opd1 / Opd2, 0)
14        ELSE 0
15    END;
16 END //
17 DELIMITER ;
18 • CALL Proc_Calculator(10, 5, '**', @res);
19 • SELECT @res;
```

The result grid below shows one row with the value 50.

Задание 9

The screenshot shows the MySQL Workbench interface with the following details:

- Title Bar:** Local instance 3306 - Warning - not supported | MySQL Workbench
- Toolbar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help
- Schemas:** homework_db
- Tables:** Shop (Buyers, Departments, ProductGroups, Products, Purchases, Sellers, Students), Views (View_BuyersByDepa), Stored Procedures (DYNTAB, GetAllSellers, Parse, Proc_Calculator), Functions, sys.
- Query Editor:** Name: Proc_Calculator - Routine
- DDL:** The code is as follows:

```
1 • CREATE DEFINER= `root`@`localhost` PROCEDURE `Proc_Calculator`(
2     IN Opd1 BIGINT,
3     IN Opd2 BIGINT,
4     IN Oprt CHAR(1),
5     OUT Result BIGINT
6 )
7 BEGIN
8     SET Result = CASE Oprt
9         WHEN '+' THEN Opd1 + Opd2
10        WHEN '-' THEN Opd1 - Opd2
11        WHEN '*' THEN Opd1 * Opd2
12        WHEN '/' THEN IF(Opd2 <> 0, Opd1 / Opd2, 0)
13        ELSE 0
14    END;
15 END;
```

The status bar at the bottom indicates "Query Completed".

Задание 10

The screenshot shows the MySQL Workbench interface with the following details:

- Title Bar:** Local instance 3306 - Warning - not supported | MySQL Workbench
- Toolbar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help
- Schemas:** homework_db
- Tables:** Shop (Buyers, Departments, ProductGroups, Products, Purchases, Sellers, Students), Views (View_BuyersByDepa), Stored Procedures (DYNTAB, GetAllSellers, Parse, Proc_Calculator), Functions, sys.
- Query Editor:** Name: new_procedure - Routine
- DDL:** The code is as follows:

```
1 • CREATE PROCEDURE `new_procedure` ()
```

The status bar at the bottom indicates "Query Completed".