

Tạo Bảng Managers:

```
CREATE TABLE `managers` (  
  `ID_MNG` INT AUTO_INCREMENT NOT NULL,  
  `TEN` VARCHAR(45) NOT NULL,  
  `NAM_SINH` YEAR NULL,  
  CONSTRAINT `PRIMARY` PRIMARY KEY (`ID_MNG`)  
);
```

Tạo bảng Reposter:

```
CREATE TABLE `reposter` (  
  `ID_REPOSTER` INT AUTO_INCREMENT NOT NULL,  
  `TEN` VARCHAR(45) NOT NULL,  
  `TO_CHUC` VARCHAR(45) NULL,  
  `nam_sinh` YEAR NULL,  
  CONSTRAINT `PRIMARY` PRIMARY KEY (`ID_REPOSTER`)  
);
```

Tạo bảng users:

```
CREATE TABLE `users` (  
  `ID_USER` INT AUTO_INCREMENT NOT NULL,  
  `ACCOUNT_NAME` VARCHAR(45) NOT NULL,  
  `PASSWORDS` VARCHAR(45) NULL,  
  `FACEBOOK_USER` VARCHAR(100) NULL,  
  `EMAIL_USER` VARCHAR(100) NULL,  
  `ID_MNG` INT NULL,  
  CONSTRAINT `PRIMARY` PRIMARY KEY (`ID_USER`),  
  CONSTRAINT `ID_MNG_fk` FOREIGN KEY (`ID_MNG`) REFERENCES `managers` (`ID_MNG`) ON DELETE NO ACTION ON UPDATE NO ACTION  
);
```

Tạo bảng Post:

```
CREATE TABLE `post` (  
  `ID_POST` INT AUTO_INCREMENT NOT NULL,  
  `TIEU_DE` TEXT NOT NULL,  
  `NOI_DUNG` TEXT NOT NULL,  
  `IMAGES` VARCHAR(45) NULL,  
  `NGUOI_DANG` INT NOT NULL,  
  `LUOT_XEM` INT NOT NULL,  
  `NGUOI_DUYET` INT NULL,  
  `thoi_gian_dang` DATE NULL,  
  `xet_duyet` INT NULL,  
  CONSTRAINT `PRIMARY` PRIMARY KEY (`ID_POST`),  
  CONSTRAINT `Manager_id_fk` FOREIGN KEY (`NGUOI_DUYET`) REFERENCES `managers` (`ID_MNG`) ON DELETE NO ACTION ON UPDATE NO ACTION,  
  CONSTRAINT `Reposter_id_fk` FOREIGN KEY (`NGUOI_DANG`) REFERENCES `reposter` (`ID_REPOSTER`) ON DELETE NO ACTION ON UPDATE NO ACTION  
);
```

Tạo bảng comment:

```
CREATE TABLE `comment` (  
  `ID_COMMENT` INT AUTO_INCREMENT NOT NULL,  
  `NGUOI_COMMENT` INT NOT NULL,  
  `time_comment` DATE NULL,  
  `noi_dung` TEXT NULL,  
  CONSTRAINT `PRIMARY` PRIMARY KEY (`ID_COMMENT`),  
  CONSTRAINT `User_commet_id_fk` FOREIGN KEY (`NGUOI_COMMENT`) REFERENCES `users` (`ID_USER`) ON DELETE NO ACTION ON UPDATE NO ACTION  
);
```

Tạo bảng Share:

```
CREATE TABLE `share` (  
  `ID_SHARE` INT AUTO_INCREMENT NOT NULL,  
  `NGUOI_SHARE` INT NOT NULL,  
  `time_share` DATE NULL,  
  CONSTRAINT `PRIMARY` PRIMARY KEY (`ID_SHARE`),  
  CONSTRAINT `User_id_fk` FOREIGN KEY (`NGUOI_SHARE`) REFERENCES `users` (`ID_USER`) ON DELETE NO ACTION ON UPDATE NO ACTION  
);
```

Insert dữ liệu vào các bảng:

```
INSERT INTO MANAGERS(TEN ,NAM_SINH)  
VALUES ('HOANG ANH','1998') ,  
       ('VIET ANH' , '1990' ),  
       ('QUYNH NGUYEN' , '1995') ,  
       ('THANH THAO' , '1996' );
```

```
INSERT INTO REPOSTER (TEN , NAM_SINH , TO_CHUC)  
VALUES ('TRANG NGUYEN' , '1980' , 'BAO THANH NIEN'),  
       ('TUAN ANH' , '1999' , 'BAO THE THAO'),  
       ('TRINH DUONG' , '1995' , 'BAO PHAP LUAT'),  
       ('THU THAO' , '1997' , 'DAI TRUYEN HINH VTC'),  
       ('VIET NGUYEN' , '1990' , 'BAO VOV GIAO THONG ');
```

```
INSERT INTO USERS (ACCOUNT_NAME, PASSWORDS, FACEBOOK_USER , EMAIL_USER, ID_MNG)  
VALUES ('THANG TRINH' , 12341235 , NULL , 'TRINHVANTHANG@GMAIL.COM' , 2 ),  
       ('HOAI AN' , 12356789 , NULL , 'HOAIAN@GMAIL.COM' ,1 ),  
       ('NGUYEN NAM' , 12345676 , 'NGUYEN NAM ' , 'NGUYENNAM@GMAIL.COM' , 4 ),  
       ('DUNG NGUYEN' , 45678453 , 'DUNG CHERRY' , 'DUNGNGUYEN@GMAIL.COM' , 3),  
       ('HOAN ANH TUAN' , 66668888 , 'TUAN ANH HOANG' , 'TUANANH@GMAIL.COM' , 1),  
       ('NGUYEN HAI ANH' , 11112222 , NULL , NULL , 2) ,  
       ('TRINH LONG' , 22221111 , NULL , NULL , 1) ,  
       ('NGUYEN LONG' , 00001111 , NULL , 'NGUYENLONG@GMAIL.COM' ,3) ,  
       ('TRUONG THU THAO' , 88889999 , NULL , NULL , 1),  
       ('LINH ANH' ,11116666 , 'ANH BLACKPINK' , NULL , 4);
```

```
INSERT INTO POST (TIEU_DE , NOI_DUNG , IMAGES , LUOT_XEM , XET_DUYET , THOI_GIAN_DANG , NGUOI_DUYET , NGUOI_DANG)  
VALUES ('LAO DONG' , 'NGUOI LAO DONG ĐANG THẬT NGHIỆP NHIEU.....' , NULL , 20 ,1 , '2018-01-20' , 1 , 3),  
       ('TIN AN NINH' , ' VAO HOI 12H ....' , NULL , 10 ,1 , '2018-01-20' , 1,4),  
       ('GIAO THONG VÀ BAI TOAN KET XE' , ' HƠM NAY ....' , NULL , 16 ,0 , '2018-01-21' , 1,1),  
       ('LUAT HON NHAN GIA DINH' , ' THEO NGHI QUYET....' , NULL , 30 ,1 , '2018-01-22' , 4,5),  
       ('GIAO DUC' , ' KI THI THPT QUOC GIA NAM NAY ....' , NULL , 50 , 1 , '2018-02-22' , 3 , 2) ,  
       ('GIAO THONG ' , ' HƠM NAY CỔ MÔ VU TẠI NAN XE HƠI ....' , NULL , 10 ,1 , '2018-02-24' , 1,1),  
       ('TIN QUOC TE' , ' BỎ NGOÀI GIAO VIET NAM SANG THAM CHÍNH PHU CAMPUCHIA ....' , NULL , 100 , 1 , '2018-01-24' , 4,5),  
       ('SUC KHOE NGUOI DAN' , ' HƠM NAY , BỎ CÔNG AN PHÒNG CHỐNG THỰC PHẨM DƯC HẠI ĐÃ ....' , NULL , 10 , 1 , '2018-03-25' , 2,5),  
       ('PHAP LUAT ' , ' ĐU AN ALIBABA ĐÃ BỊ ĐNH CHI VI NGHI NGO CHU DOANH NGHIỆP NAY ....' , NULL , 50 ,1 , '2018-5-26' , 1,1),  
       ('AN NINH ' , ' VAO HOI 15H CHIEU NGAY HƠM NAY , CÔNG AN ĐÃ BAT QUA TANG....' , NULL , 40,1 , '2018-06-24' , 4,1);
```

```
INSERT INTO COMMENT (TIME_COMMENT , NOI_DUNG , NGUOI_COMMENT)  
VALUES ('2018-01-22-12-20' , ' TÔI CUNG NGHI NHƯ VẬY' , 1),  
       ('2018-01-22-12-21' , ' KHÔNG THE CHAP NHAN DUOC' , 4),  
       ('2018-01-23-20-19' , 'QUAN ĐIM CỦA TÔI VẠN LÃ 1 VỎ 1 CHÔNG' , 10),  
       ('2018-03-24-20-13' , ' RA LA VẬY' , 6),  
       ('2018-03-25-12-01' , ' GIAO THONG ĐẠO NAY CHAN QUA' , 8),  
       ('2018-03-22-12-21' , ' BUON THẬT SU' , 3),  
       ('2018-03-24-12-20' , ' XA HƠI GIO LOAN LAM MƠI NGUOI A' , 8),  
       ('2018-03-26-12-20' , ' CHAN.....' , 9),  
       ('2018-03-12-12-20' , ' MƠI NGUOI CỎ LEN' , 5),  
       ('2018-03-12-12-20' , ' CAC CHIEN SI TUYET VOI' , 7),  
       ('2018-03-12-12-20' , ' CHÚC CAC CHIEN SI LUON KHO MANH DE PHUC VU DAN' , 2),  
       ('2018-04-10-12-20' , ' SÁP TÔI NGAY THUONG BINH LIET SI ROI' , 3),  
       ('2018-04-10-12-20' , ' NAM NAY DE THI SE KHO DAY' , 4),  
       ('2018-04-20-12-20' , 'KHÔNG BIẾT VẠN SE RA DE GI DAY' , 8);
```

```

INSERT INTO SHARE(TIME_SHARE, NGUOI_SHARE)
VALUES ('2018-01-23-12-23' , 1 ),
       ('2018-01-22-12-21' , 4 ),
       ('2018-01-25-12-19' , 5 ),
       ('2018-01-23-12-23' , 3 ),
       ('2018-01-23-12-23' , 5 ),
       ('2018-01-23-12-23' , 6 ),
       ('2018-01-23-12-23' , 8 ),
       ('2018-01-23-12-23' , 10 ),
       ('2018-01-23-11-21' , 8 ),
       ('2019-01-23-02-13' , 9 ),
       ('2019-01-23-01-04' , 1 ),
       ('2019-01-23-01-09' , 5 ),
       ('2018-01-23-12-02' , 2 ),
       ('2018-01-23-12-21' , 2 ),
       ('2019-01-23-01-21' , 4 ),
       ('2019-01-23-01-21' , 3 ),
       ('2019-01-23-01-21' , 6 ),
       ('2019-01-23-01-21' , 5);

```

Các câu lệnh truy vấn:

```

-- Truy van tat ca bang POST va MANAGERS
select * from post;
SELECT * FROM MANAGERS;

-- truy van nhung nhung bai viet co LUOT_XEM lon hon 20
select * from post
where LUOT_XEM > 20;

-- trong bang post viet truy van nhwng bai viet da duoc xet duyet va xap xep theo thu tu bang chu cai cua cot tieu de
select * from post
where xet_duyet = 1
order by tieu_de asc;

-- viet truy van de lay ten cac account name cua user comment vao post
select c.nguoi_comment, u.account_name,c.noi_dung from comment c
join users u on c.nguoi_comment = u.id_user;

-- viet truy van tim bai viet co noi dung bat dau bang 'n'
select * from post
where lower(substring(noi_dung,1,1)) = 'n';

-- tao view lay bai viet da duoc duyet boi quan ly
create view verified_post as(
    select * from post
    where xet_duyet = 1
);

select * from verified_post;

-- tao view de lay ra cac comment cua user
create view get_comment as (select * from comment);

```

```

-- tao thu tuc lay nhwng bai viet duoc duyet
delimiter $$
create procedure get_verified_post()
begin
    select * from post
    where xet_duyet = 1;
end $$
delimiter ;

call get_verified_post();

-- tao thu tuc de lay nhwng bai viet chua duoc duyet truoc ngay 01-02-2018.
delimiter $$
create procedure get_unverified_post_before()
begin
    select * from post
    where xet_Duyet = 0 and thoi_gian_dang < '2018-02-01';
end $$
delimiter ;

call get_unverified_post_before();

SET GLOBAL log_bin_trust_function_creators = 1;

-- tao function de lay so luong thang lon nhat ma cac bai viet da dang ke tu thoi diem duoc dang den thoi diem 01-01-2019 trong bang post
delimiter $$
create function max_month()
returns int
begin
    declare res int;
    select timestampdiff(month,min(thoi_gian_dang),'2019-01-01') from post into res;
    return res;
end $$
delimiter ;

select max_month();

```

Tạo trigger và index:

```

create table comment_on_day(
    id_user int,
    day date,
    number_of_comment int,
    primary key (id_user,day)
);

-- tao trigger luu lai moi user da thuc hien bao nhieu comment trong mot ngay
delimiter $$
create trigger handle_nums_of_comment_on_day
after insert on comment for each row
begin
    if(exists(select * from comment_on_day where id_user = new.nguoi_comment and day = new.time_comment))
    then
        update comment_on_day set number_of_comment = number_of_comment + 1 where id_user = new.nguoi_comment and day = new.time_comment;
    else
        insert into comment_on_day(id_user,day,number_of_comment) values (new.nguoi_comment, new.time_comment,1);
    end if;
end $$
delimiter ;

-- TAO INDEX TREN COT TIEU_DE TRONG BANG POST DE GIUP VIEC TIM KIEM THEO THEO TIEU DE NHANH HON
CREATE INDEX post_heading_idx ON post(TIEU_DE(100));

-- Tao index tren cot thoi gian dang de tang toc do tim kiem post theo thoi gian dang
create index post_day_inx on post(thoi_gian_dang);

```