CREATE TABLE ShareHolder( PanNumber varchar(10)PRIMARY KEY, PhoneNo int CHECK (PhoneNo BETWEEN 1000000000 AND 99999999999), address varchar(50)NOT NULL,gender char(1) NOT NULL, Fname char(10)NOT NULL,Minit char(1),Lname char(10) NOT NULL);

CREATE TABLE Stocks( ISINCode varchar(12) PRIMARY KEY,Type char(15) NOT NULL);

CREATE TABLE Company( CIN varchar(21) PRIMARY KEY,name char(25) UNIQUE NOT NULL, RegOffAddr varchar(50) NOT NULL,

Phone int CHECK (Phone BETWEEN 1000000000 AND 9999999999),

Email varchar(20) UNIQUE,KPName char(20),KPDesig char(20),

KPPhone int CHECK (KPPhone BETWEEN 1000000000 AND 9999999999));

CREATE TABLE DepositoryParticipant( DPId varchar(20) PRIMARY KEY,Address varchar(50) NOT NULL, PhoneNo int CHECK (PhoneNo BETWEEN 1000000000 AND 9999999999), Email varchar(20) UNIQUE,DSPId varchar(20) NOT NULL, DPProviderName char(30) NOT NULL);

CREATE TABLE Bank( IFSCCode varchar(20),Address varchar(50) NOT NULL, PhoneNo int CHECK (PhoneNo BETWEEN 1000000000 AND 9999999999), Email varchar(20) UNIQUE,Name char(20) UNIQUE NOT NULL);

CREATE TABLE Broker( BrokerageCode varchar(20) PRIMARY KEY,Address varchar(50) NOT NULL, PhoneNo int CHECK (PhoneNo BETWEEN 1000000000 AND 9999999999), Email varchar(30) UNIQUE,Name char(15) UNIQUE NOT NULL, KPName char(20),KPDesig char(20),KPPhone int CHECK (KPPhone BETWEEN 1000000000 AND 9999999999));

CREATE TABLE Owns( Quantity int NOT NULL);

CREATE TABLE Has( DOJ date,BoughtFrom char(20),FolioNo int NOT NULL);

CREATE TABLE Issues( DOI date,NoOfShares int);

CREATE TABLE Trades( DebCred char(4),TransactionId varchar(20));

CREATE TABLE BuysThrough( Commission int NOT NULL);

alter table Stocks add CIN varchar(15);

alter table Stocks add Foreign Key(CIN)references Company(CIN);

alter table ShareHolder add BrokerageCode varchar (20);

alter table ShareHolder add Foreign Key(BrokerageCode) references Broker(BrokerageCode);

alter table Bank add BrokerageCode varchar (20);

alter table Bank add Foreign Key(BrokerageCode) references Broker(BrokerageCode);

alter table Owns add PanNumber varchar (10);

alter table Owns add Foreign Key(PanNumber) references ShareHolder(PanNumber);

alter table Owns add ISINCode varchar(12);

alter table Owns add Foreign Key(ISINCode) references Stocks(ISINCode);

alter table Has add CIN varchar(15);

alter table Has add Foreign Key(CIN) references Company(CIN);

alter table Has add PanNumber varchar(10);

alter table Has add Foreign Key(PanNumber) references ShareHolder(PanNumber);

alter table Issues add ISINCode varchar(12);

alter table Issues add Foreign Key(ISINCode) references Stocks(ISINCode);

alter table Issues add CIN varchar(21);

alter table Issues add Foreign Key(CIN) references Company(CIN);

alter table Trades add ISINCode varchar(12);

alter table Trades add Foreign Key(ISINCode) references Stocks(ISINCode);

alter table Trades add BrokerageCode varchar (20);

alter table Trades add Foreign Key(BrokerageCode) references Broker(BrokerageCode);

alter table Trades add IFSCCode varchar (20);

alter table Trades add Foreign Key(IFSCCode) references Bank(IFSCCode);

alter table ShareHolder alter column PhoneNo TYPE bigint;

alter table Company alter column Phone TYPE bigint;

alter table Company alter column KPPhone TYPE bigint;

alter table DepositoryParticipant alter column PhoneNo TYPE bigint;

alter table Bank alter column PhoneNo TYPE bigint;

alter table Broker alter column PhoneNo TYPE bigint;

alter table Broker alter column KPPhone TYPE bigint;

alter table Trades add Price int;

alter table Trades add Quantity int;

insert into ShareHolder values('MPNGN2488Z',9611963486,'B3-305 Elita JP Nagar','M','Apoorav',NULL,'Sharma');

insert into ShareHolder values('QUARK4563M',9274758390,'Jayanagar','M','Salim','K','Suleman');

insert into ShareHolder values('DJAXD5247T',9632899755,'Indra Nagar','M','Rishabh','K','Jain');

insert into ShareHolder values('JQEDG2765C',9230123487,'KORAMANGALA','F','Jeevana','R','Hegde');

insert into ShareHolder values('FLMAZ5478D',9603256478,'MG Road','M','Saahil','B','Jain');

insert into Shareholder values('SDFKD2832E',9234235223,'G04 Laburnum, Brigade JP Nagar','F','Phalguni',NULL,'Kamani');

insert into Stocks values('INE079A01024','Equity');

insert into Stocks values('INE084A01016','Equity');

insert into Stocks values('INE013A01015','Equity');

insert into Stocks values('INP028B97865','Preferred');

insert into Stocks values('INP824W90256','Preferred');

insert into Company values('L26942GJ1981PLC004717','Ambuja Cement','AmbujaNagar, Taluka, Gujarat',9048917689,'shares@ambujacement.com','Suresh Neotia','Founder',9611902730);

insert into Company values('B99999MH1919PTC000615','Bank of India','Bandra Kurla Complex, Maharashtra',9325609178,'boi@gmail.com','Dinbandh Mohan','CEO',7923401567);

insert into Company values('L65910MH1986PLC165645','Reliance Capital','H Block First Floor, Navi Mumbai, Maharashtra',8971797503,'Compsec.RCL@relianceada.com','Anil Ambani','Director',7892356120);

insert into Company values('K89103KA7194PTC817620','Big Bazaar','JP Nagar, Karnataka',8864310934,'bigbazaar@futuregroup.in','Sadashiv Nayak','President',8901235829);

insert into Company values('Z90345MP3515PLC002381','ITC Hotels','Bhopal, Madhya Pradesh',9018999932,'itchotels@gmail.com','Nakul Anand','Managing Director',9044429066);

insert into DepositoryParticipant values('76600','Sector-3, Noida, Uttar Pradesh',1149002202,'info@4asecurities.com','CDSL','4A Securities Ltd');

insert into DepositoryParticipant values('36900','Durga Nagar, Hyderabad, Telangana', 4066361257, 'jsr@balajiequites.com', 'CDSL', 'Balaji Equities Limited');

insert into DepositoryParticipant values('54200','Naman Midtown, Dadar, Mumbai, Maharashtra',2224391851,'depository@samco.in','CDSL','Samco Securities Limited');

insert into DepositoryParticipant values('1382000','4 Lee Road, Kolkata',8030515400,'cmack@vsnl.com','NSDL','C. Mackertich Limited');

insert into DepositoryParticipant values('2982008','L.B.S.Marg, Thane, Mumbai',8067940500,'tc@tatacapital.com','NSDL','Tata Securities Ltd');

insert into Bank values('SBIN0001537','Inner Circle Connaught Circus, New Delhi',9450076111,'sbi@banks.com','SBI Bank');

insert into Bank values('ICIC0006561','MG Road, Bangalore, Karnataka',7823400017,'icici@banks.com','ICICI Bank');

insert into Bank values('UTIB0000373','Manish Chambers, Sonawala Road, Maharashtra',8756421825,'axis@banks.com','AXIS Bank');

insert into Bank values('HDFC0001015','Jardine House-4, Clive Row, Kolkata',8997709876,'hdfc@banks.com','HDFC Bank');

insert into Bank values('CNRB0001723','Ess Kay Tower, Gurgaon, Haryana',9009916047,'canara@banks.com','Canara Bank');

insert into Broker values('90010','Bangalore, Karnataka',8040402020,'contact@zerodha.com','Zerodha','Nithin Kamath','CEO',9475289514);

insert into Broker values('23096','ChurchGate, Mumbai',9122882460,'direct@icici.com','ICICI Direct','L. Govind','Director',8099551122);

insert into Broker values('72109','Karvy House, Banjara Hills, Telangana',9123312454,'karvy@broker.com','Karvy','Y. Sailaja','CS',9133211000);

insert into Broker values('43210','Civil Line Road, Kochi',8429010000,'customercare@geojit.com','Geojit','C.J.George','Promoter',9067454987);

insert into Owns values(10,'MPNGN2488Z','INE084A01016');

insert into Owns values(10,'MPNGN2488Z','INP824W90256');

insert into Owns values(25,'DJAXD5247T','INE079A01024');

insert into Owns values(100,'JQEDG2765C','INP028B97865');

insert into Owns values(60,'FLMAZ5478D','INE084A01016');

insert into Owns values(20,'QUARK4563M','INE013A01015');

insert into Issues values('1970-01-27',3000,'INE079A01024','L26942GJ1981PLC004717');

insert into Issues values('1965-04-03',5500,'INE084A01016','B99999MH1919PTC000615');

insert into Issues values('1933-11-16',8500,'INE013A01015','L65910MH1986PLC165645');

insert into Issues values('1998-09-21',2100,'INP028B97865','K89103KA7194PTC817620');

insert into Issues values('1990-07-28',3300,'INP824W90256','Z90345MP3515PLC002381');

insert into Has values('2002-03-10','MARGF8234C',59230912,'L26942GJ1981PLC004717','DJAXD5247T');

insert into Has values('2004-12-31','ZKLAS5278U',24957120,'B99999MH1919PTC000615','MPNGN2488Z');

insert into Has values('2005-01-01','LASCF0912G',34875934,'B99999MH1919PTC000615','FLMAZ5478D');

insert into Has values('2009-04-26','DCSVB1111H',49905849,'Z90345MP3515PLC002381','MPNGN2488Z');

insert into Has values('2007-06-07','XJKNM0000A',20937521,'K89103KA7194PTC817620','JQEDG2765C');

insert into Has values('2001-02-26','EKFER8475J',28937520,'L65910MH1986PLC165645','QUARK4563M’);

insert into HoldsAccount values('MPNGN2488Z','76600');

insert into HoldsAccount values('QUARK4563M','36900');

insert into HoldsAccount values('DJAXD5247T','54200');

insert into HoldsAccount values('JQEDG2765C','1382000');

insert into HoldsAccount values('FLMAZ5478D','2982008');

insert into BuysThrough values(100000,'MPNGN2488Z','90010');

insert into BuysThrough values(250000,'QUARK4563M','23096');

insert into BuysThrough values(302000,'DJAXD5247T','72109');

insert into BuysThrough values(400000,'JQEDG2765C','43210');

insert into BuysThrough values(175000,'FLMAZ5478D','90010');

insert into Trades values('Cred','894582097545','INE079A01024','72109','SBIN0001537');

insert into Trades values('Deb','894582097545','INE079A01024','43210','SBIN0001537');

insert into Trades values('Cred','927418974231','INE084A01016','90010','ICIC0006561');

insert into Trades values('Deb','927418974231','INE084A01016','23096','ICIC0006561');

alter table Broker drop KPname;

alter table Broker drop KPDesig;

alter table Broker drop KPPhone;

insert into Broker values('68324','V V Puram, Karnataka', 9345623400,'welspun123@gmail.com','Welspun');

alter table ShareHolder ADD CONSTRAINT check\_gender CHECK(gender IN ('M','F'));

alter table DepositoryParticipant ADD CONSTRAINT check\_DSP CHECK(DSPId IN ('CDSL','NSDL'));

alter table Trades ADD CONSTRAINT check\_DC CHECK(DebCred IN ('Deb','Cred'));

CREATE TABLE HasAccount(IFSCCode varchar(20),BrokerageCode varchar(20),Foreign Key(IFSCCode) references Bank(IFSCCode),Foreign Key(BrokerageCode) references Broker(BrokerageCode));

update ShareHolder SET BrokerageCode='90010' where PanNumber='MPNGN2488Z';

update ShareHolder SET BrokerageCode='23096' where PanNumber='QUARK4563M';

update ShareHolder SET BrokerageCode='72109' where PanNumber='DJAXD5247T';

update ShareHolder SET BrokerageCode='43210' where PanNumber='JQEDG2765C';

update ShareHolder SET BrokerageCode='90010' where PanNumber='FLMAZ5478D';

update Stocks SET CIN='L26942GJ1981PLC004717' where ISINCode='INE079A01024';

update Stocks SET CIN='B99999MH1919PTC000615' where ISINCode='INE084A01016';

update Stocks SET CIN='L65910MH1986PLC165645' where ISINCode='INE013A01015';

update Stocks SET CIN='K89103KA7194PTC817620' where ISINCode='INP028B97865';

update Stocks SET CIN='Z90345MP3515PLC002381' where ISINCode='INP824W90256';

update Bank SET BrokerageCode='72109' where IFSCCode='SBIN0001537';

update Bank SET BrokerageCode='23096' where IFSCCode='ICIC0006561';

update Bank SET BrokerageCode='72109' where IFSCCode='UTIB0000373';

update Bank SET BrokerageCode='43210' where IFSCCode='HDFC0001015';

update Bank SET BrokerageCode='72109' where IFSCCode='CNRB0001723';

Update BuysThrough

SET ISINCode=’ INE084A01016’, Quantity=10 where PanNumber=’ MPNGN2488Z’;

Update BuysThrough

SET ISINCode=’ INE013A01015’, Quantity=20 where PanNumber=’ QUARK4563M’;

Update BuysThrough

SET ISINCode=’ INE079A01024’, Quantity=25 where PanNumber=’ DJAXD5247T’;

Update BuysThrough

SET ISINCode=’ INP028B97865’, Quantity=100 where PanNumber=’ JQEDG2765C’;

Update BuysThrough

SET ISINCode=’ INE084A01016’, Quantity=60 where PanNumber=’ FLMAZ5478D’;

Update Trades

SET Price=2300000, Quantity=25 where TransactionId= ‘894582097545’;

Update Trades

SET Price=700000, Quantity=10 where TransactionId= ‘927418974231’;

alter table bank drop column brokeragecode;

alter table HasAccount add Amount bigint;

alter table Issues add Price\_Per\_Share int;

insert into HasAccount values('SBIN0001537','72109');

insert into HasAccount values('ICIC0006561’,’ 23096’);

insert into HasAccount values('UTIB0000373','72109');

insert into HasAccount values(‘HDFC0001015','43210');

insert into HasAccount values('CNRB0001723','72109');

update Trades

SET Price=Price/10;

Update BuysThrough

SET Commission=350 where PanNumber=’MPNGN2488Z’;

Update BuysThrough

SET Commission=650 where PanNumber=’QUARK4563M’;

Update BuysThrough

SET Commission=1150 where PanNumber=’DJAXD5247T’;

Update BuysThrough

SET Commission=4000 where PanNumber=’JQEDG2765C’;

Update BuysThrough

SET Commission=2100 where PanNumber=’FLMAZ5478D’;

Update BuysThrough

SET BrokerageCode=’68324’ where PanNumber=’FLMAZ5478D’;

Update HasAccount

SET Amount=1000000000;

Update HasAccount

SET BrokerageCode=’90010’ where IFSCCode=’UTIB0000373’;

Update HasAccount

SET BrokerageCode=’68324’ where IFSCCode=’CNRB0001723’;

Update Issues

SET Price\_Per\_Share=9200 where ISINCode=’INE079A01024’;

Update Issues

SET Price\_Per\_Share=7000 where ISINCode=’INE084A01016’;

Update Issues

SET Price\_Per\_Share=6500 where ISINCode=’INE013A01015’;

Update Issues

SET Price\_Per\_Share=8000 where ISINCode=’INP028B97865’;

Update Issues

SET Price\_Per\_Share=7500 where ISINCode=’INP824W90256’;

Update Trades

SET IFSCCode=’UTIB0000373’ where TransactionId=’ 927418974231’;