Тема 6

Домашно 4 – База от данни за болница „Тестмед"

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1. Релационен модел на данни (релационни схеми):

Схемата на базата от данни се състои от следните релационни схеми:

- **Staff** (<u>ID</u>: CHAR (10), name: VARCHAR(20), position: VARCHAR(15), telephoneNumber: CHAR(10), e-mail: VARCHAR(20), salary: INT, directorHospital: INT, chiefNurse: INT, headOfDepartment: INT, <mark>departmentName</mark>:VARCHAR(20));
- **Patients** (<u>EGN</u>: CHAR(10), name: VARCHAR(20), gender: VARCHAR(1), address: VARCHAR(30), telephoneNumber: CHAR(10), healthInsured: INT, TELK: INT, purposeOfVisit: VARCHAR(20), officeNumber: CHAR(5), priceOfService: INT , <mark>doctorID: CHAR(10), registryStaffID: CHAR(10), dateArrival:DATE, timeArrival: TIME, patientsRoomNumber: CHAR(5), departmentName: VARCHAR(20)</mark>);
- **HospitalDepartments** (<u>name</u>: VARCHAR(20), headDoctorID: CHAR(10));
- **HistoryOfProcedures** (<u>EGN</u>: CHAR(10), <u>date</u>: DATE, typeOfProcedures: VARCHAR(10), resultOfProcedures: VARCHAR(10), diagnosisName: VARCHAR(15));
- **HospitalPatientsRooms** (<u>patientsRoomNumber</u>: CHAR(5) ,<u>departmentName</u>: VARCHAR(20), numberBeds: INT, numberFreeBeds: INT);
- **HospitalOffice** (<u>officeNumber</u>: CHAR(5), <u>departmentName</u>: VARCHAR(20), busy: INT, <mark>IDStaff</mark>: CHAR(10));
- **Cleans** (<u>sanitarianID</u>: CHAR(10), <u>departmentName</u>: VARCHAR(20));
- **GoThrough** (<u>nurseID</u>: CHAR(10), <u>departmentName</u>: VARCHAR(20), <u>patientsRoomNumber</u>: CHAR(5));
- **Helps** (<u>sanitarianID</u>: CHAR(10), <u>patientEGN</u>: CHAR(10));
- **TakingCareOf** (<u>nurseID</u>: CHAR(10), <u>patientEGN</u>: CHAR(10));

2. ФЗ и нормализация:

За схемата на БД по-горе са в сила следните ФЗ:

- **ФЗ-1**: <u>ID</u> -> name, position, telephoneNumber, e-mail, salary, directorHospital, chiefNurse, headOfDepartment, departmentName (Staff);
- **ФЗ-2**: <u>EGN</u> -> name, gender, address, telephoneNumber, healthInsured, TELK, (Patients);
- **ФЗ-3**: <u>EGN, dateArrival, timeArrival</u> -> purposeOfVisit, officeNumber, priceOfService, doctorID, registrySaffID, patientsRoomNumber, departmentName (PatientsHospitalService);
- **ФЗ-4**: <u>name</u> -> headDoctorID (HospitalDepartments);
- **ФЗ-5**: <u>EGN, date</u> -> typeOfProcedures, resultOfProcedures, diagnosisName (HistoryOfPRocedures);
- **ФЗ-6**: <u>patientsRoomNumber,departmentName</u> -> numberBeds, numberFreeBeds (HospitalPatientsRooms);
- **ФЗ-7**: <u>officeNumber, departmentName</u> -> busy (HospitalOffice);

За всички ФЗ на релациите е в сила, че в лявата част се намира суперключ за релацията, следователно всички релации са в НФБК. Не се налага да правим нищо допълнително.