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Факультет \_\_\_\_\_ ИТР \_\_\_\_\_

Кафедра \_\_\_\_\_ ПИН \_\_\_\_\_

## ***ЛАБОРАТОРНАЯ РАБОТА №5***

По Организация баз данных \_\_\_\_\_

Руководитель

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(дата)

Муром 2023

## Лабораторная работа №4

**Тема:** Создание базы данных средствами SQL

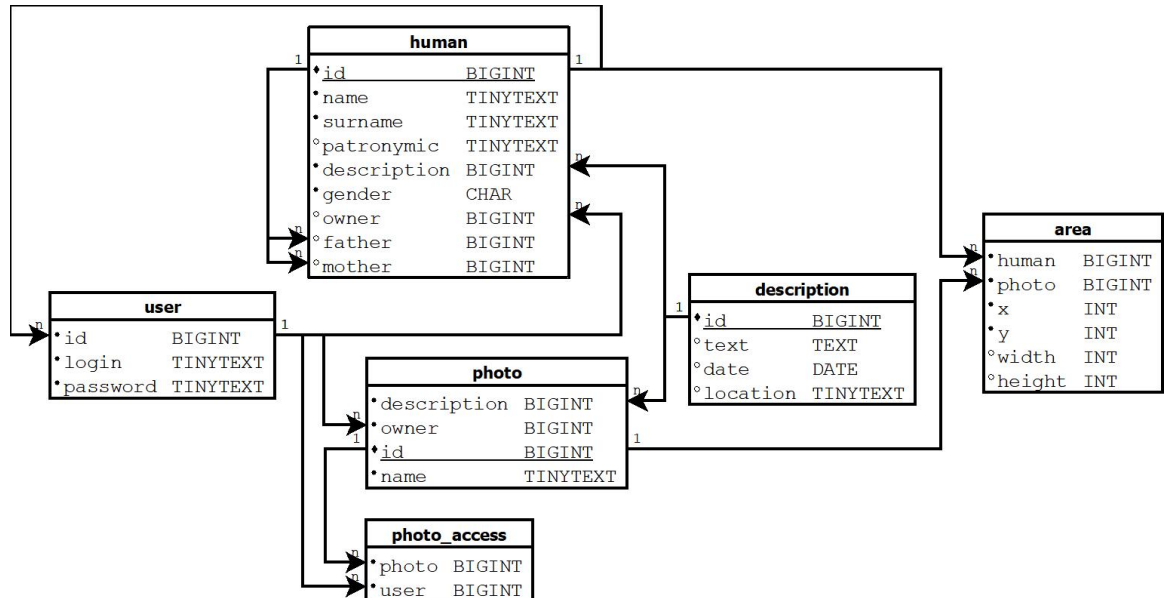


Рисунок 1 - схема базы данных

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Разраб.		Ермилов М.В.									
Провер.		Быков А.А.							2	4	
Реценз.								ПИН-121			
Н. Контр.											
Утверд.											

## Ход работы

Листинг кода по заданию, написанных на СУБД MySQL:

```
CREATE TABLE IF NOT EXISTS `user` (  
  `id` bigint(20) unsigned NOT NULL,  
  `login` tinytext NOT NULL,  
  `password` tinytext NOT NULL,  
  UNIQUE KEY `login` (`login`) USING HASH,  
  KEY `FK_user_human` (`id`) USING BTREE,  
  CONSTRAINT `FK_user_human` FOREIGN KEY (`id`) REFERENCES `human` (`id`) ON DELETE NO  
  ACTION ON UPDATE NO ACTION  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;  
  
CREATE TABLE IF NOT EXISTS `human` (  
  `id` bigint(20) unsigned NOT NULL AUTO_INCREMENT,  
  `name` tinytext NOT NULL,  
  `surname` tinytext NOT NULL,  
  `gender` tinyint(3) unsigned NOT NULL COMMENT '2 - неопределен\r\n1 - мужчина\r\n0 - женщина',  
  `mother` bigint(20) unsigned DEFAULT NULL,  
  `father` bigint(20) unsigned DEFAULT NULL,  
  `description` bigint(20) unsigned NOT NULL,  
  `owned` bigint(20) unsigned DEFAULT NULL,  
  `date_death` bigint(20) DEFAULT NULL,  
  PRIMARY KEY (`id`),  
  UNIQUE KEY `id` (`id`),  
  KEY `FK_human_human` (`mother`),  
  KEY `FK_human_human_2` (`father`),  
  KEY `FK_human_description` (`description`),  
  KEY `FK_human_user` (`owned`),  
  CONSTRAINT `FK_human_description` FOREIGN KEY (`description`) REFERENCES `description` (`id`)  
  ON DELETE NO ACTION ON UPDATE NO ACTION,  
  CONSTRAINT `FK_human_human` FOREIGN KEY (`mother`) REFERENCES `human` (`id`) ON DELETE  
  NO ACTION ON UPDATE NO ACTION,  
  CONSTRAINT `FK_human_human_2` FOREIGN KEY (`father`) REFERENCES `human` (`id`) ON DELETE  
  NO ACTION ON UPDATE NO ACTION,  
  CONSTRAINT `FK_human_user` FOREIGN KEY (`owned`) REFERENCES `user` (`id`) ON DELETE NO  
  ACTION ON UPDATE NO ACTION  
) ENGINE=InnoDB AUTO_INCREMENT=1 DEFAULT CHARSET=utf8mb4 ROW_FORMAT=DYNAMIC;  
  
CREATE TABLE IF NOT EXISTS `human_access` (  
  `user` bigint(20) unsigned NOT NULL DEFAULT 0,  
  `human` bigint(20) unsigned NOT NULL DEFAULT 0,  
  KEY `FK_human_access_human` (`human`),  
  KEY `FK_human_access_user` (`user`),  
  CONSTRAINT `FK_human_access_human` FOREIGN KEY (`human`) REFERENCES `human` (`id`) ON  
  DELETE NO ACTION ON UPDATE NO ACTION,  
  CONSTRAINT `FK_human_access_user` FOREIGN KEY (`user`) REFERENCES `user` (`id`) ON DELETE  
  NO ACTION ON UPDATE NO ACTION  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;  
  
CREATE TABLE IF NOT EXISTS `description` (  
  `id` bigint(20) unsigned NOT NULL AUTO_INCREMENT,  
  `content` text NOT NULL,  
  `date` bigint(20) DEFAULT NULL,  
  `location` tinytext DEFAULT NULL,  
  PRIMARY KEY (`id`),  
  UNIQUE KEY `id` (`id`)
```

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) ENGINE=InnoDB AUTO\_INCREMENT=1 DEFAULT CHARSET=utf8mb4 ROW\_FORMAT=DYNAMIC;

```
CREATE TABLE IF NOT EXISTS `photo` (
  `id` bigint(20) unsigned NOT NULL AUTO_INCREMENT,
  `owned` bigint(20) unsigned NOT NULL,
  `description` bigint(20) unsigned NOT NULL,
  `url` tinytext NOT NULL,
  PRIMARY KEY (`id`),
  UNIQUE KEY `id` (`id`),
  KEY `FK_photo_user` (`owned`),
  KEY `FK_photo_description` (`description`),
  CONSTRAINT `FK_photo_description` FOREIGN KEY (`description`) REFERENCES `description` (`id`) ON
DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `FK_photo_user` FOREIGN KEY (`owned`) REFERENCES `user` (`id`) ON DELETE NO
ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
CREATE TABLE IF NOT EXISTS `photo_access` (
  `user` bigint(20) unsigned NOT NULL,
  `photo` bigint(20) unsigned NOT NULL,
  KEY `FK_photo_access_user` (`user`),
  KEY `FK_photo_access_photo` (`photo`),
  CONSTRAINT `FK_photo_access_photo` FOREIGN KEY (`photo`) REFERENCES `photo` (`id`) ON
DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `FK_photo_access_user` FOREIGN KEY (`user`) REFERENCES `user` (`id`) ON DELETE NO
ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
CREATE TABLE IF NOT EXISTS `zone` (
  `photo` bigint(20) unsigned NOT NULL,
  `human` bigint(20) unsigned NOT NULL,
  `x` int(11) NOT NULL DEFAULT 0,
  `y` int(11) NOT NULL DEFAULT 0,
  KEY `FK_zone_photo` (`photo`),
  KEY `FK_zone_human` (`human`),
  CONSTRAINT `FK_zone_human` FOREIGN KEY (`human`) REFERENCES `human` (`id`) ON DELETE NO
ACTION ON UPDATE NO ACTION,
  CONSTRAINT `FK_zone_photo` FOREIGN KEY (`photo`) REFERENCES `photo` (`id`) ON DELETE NO
ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

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