Fakultas Ilmu Komputer

Learning is the process of acquiring new understanding, knowledge, behaviors, skills, values, attitudes, and preferences.

(Class Practical #1)

Development & Monitoring Apache Error
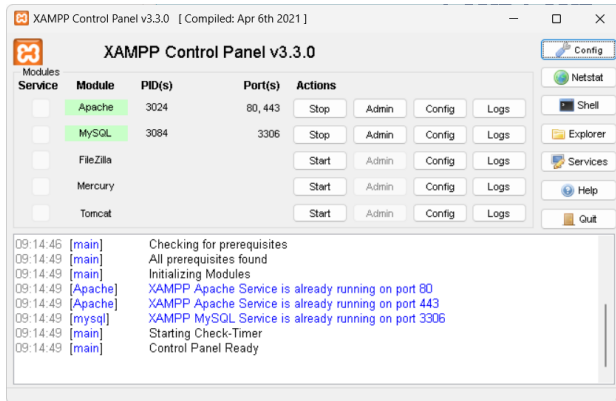
Welcome to *the* DevOps Engineering *course*

1 – Create New Database & Tables

Start Services & Sign In
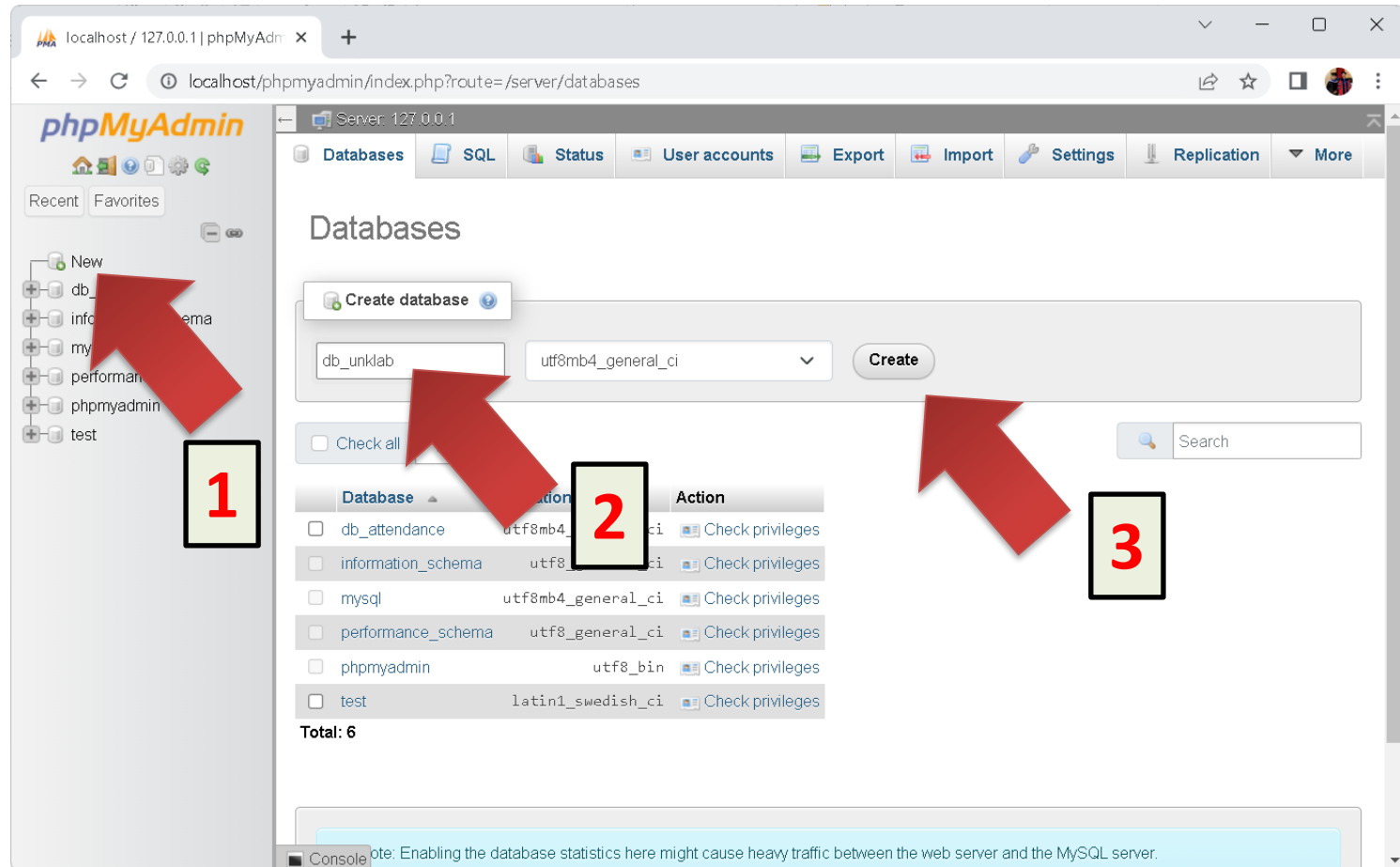
Xampp Control Panel


PHPMyAdmin Log In Page
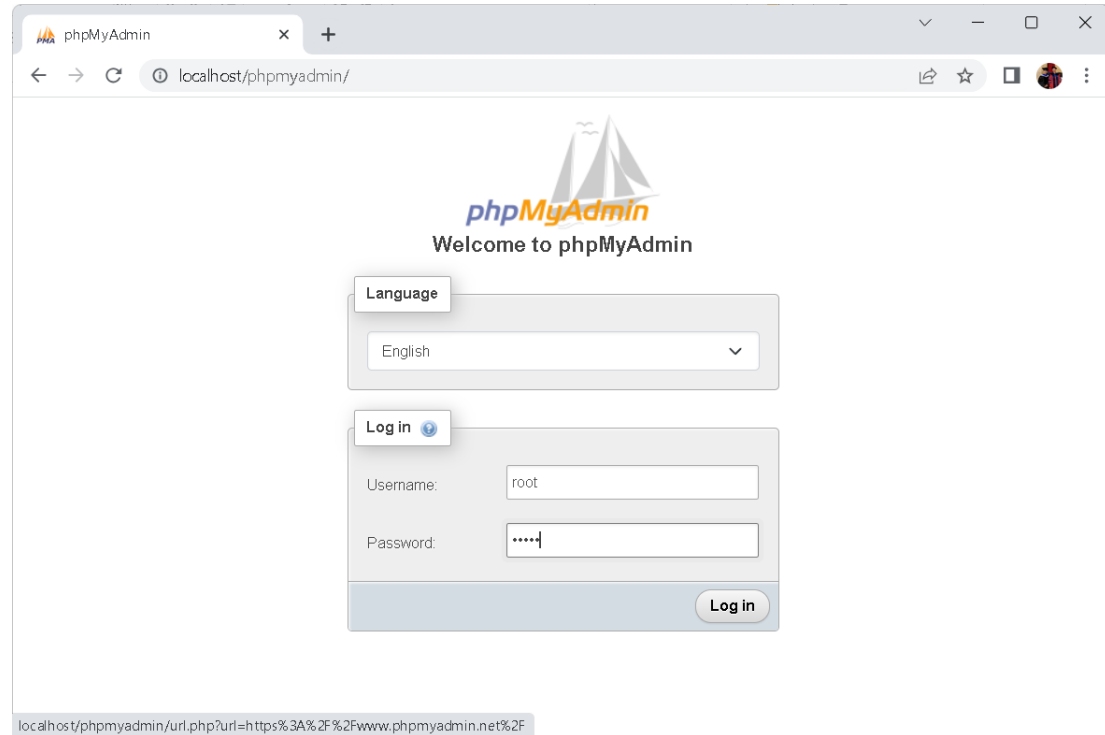
Halaman PHPMyAdmin **Log In** adalah halaman login yang digunakan untuk mengakses *user interface* web **PHPMyAdmin**, yang digunakan untuk mengelola dan mengakses database MySQL melalui *interface web* atau GUI.

Create New Database Name

Buat database baru dengan nama "***db_unklab***", selanjutnya click button "*create*" untuk melanjutkan proses.

Create Table "tbl_students"
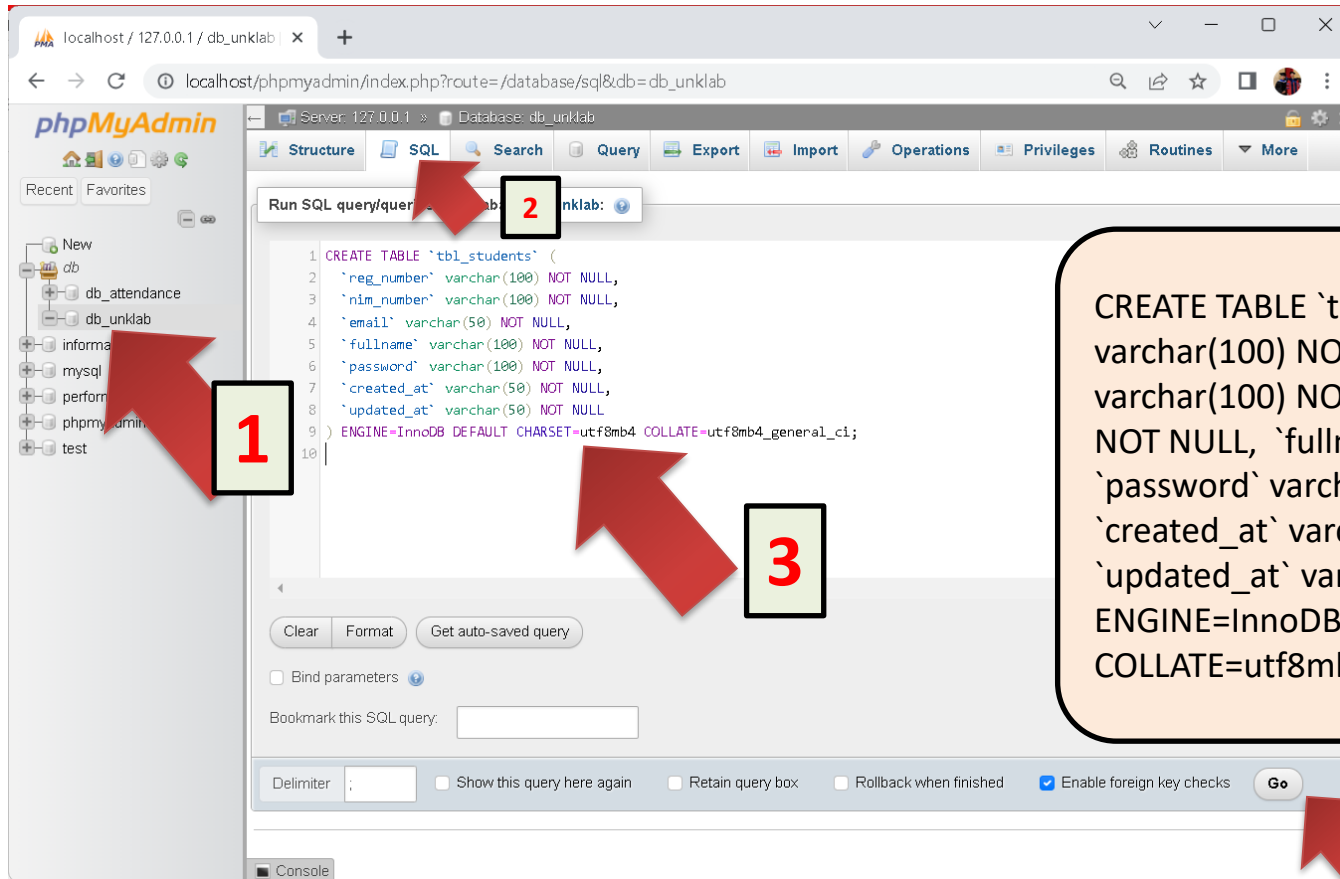
CREATE TABLE `tbl_students` (`reg_number` varchar(100) NOT NULL, `nim_number` varchar(100) NOT NULL, `email` varchar(50) NOT NULL, `fullname` varchar(100) NOT NULL, `password` varchar(100) NOT NULL, `created_at` varchar(50) NOT NULL, `updated_at` varchar(50) NOT NULL) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;

Pastikan bahwa anda harus click pada database name "*db_unklab*" dan selanjutnya click tab "SQL".

Create Table "tbl_operator"

CREATE TABLE `tbl_operator` (`nip` int(11) NOT NULL, `email` varchar(100) NOT NULL, `fullname` varchar(150) NOT NULL, `password` varchar(100) NOT NULL, `phone_number` varchar(50) NOT NULL, `role` varchar(30) NOT NULL, `created_at` varchar(100) NOT NULL, `updated_at` varchar(100) NOT NULL) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;

Pastikan bahwa anda harus click pada database name "*db_unklab*" dan selanjutnya click tab "SQL".

Create Table "tbl_classes"

Pastikan bahwa anda harus click pada database name "*db_unklab*" dan selanjutnya click tab "SQL".

Create Table "tbl_attendance_list"

CREATE TABLE `tbl_attendance_list` (`id_attendance` varchar(30) NOT NULL, `title_short` varchar(100) NOT NULL, `date_attendance` varchar(50) NOT NULL, `time_attendance` varchar(50) NOT NULL, `id_class` varchar(30) NOT NULL, `name_subject` varchar(100) NOT NULL, `email_lecturer` varchar(70) NOT NULL, `name_lecturer` varchar(70) NOT NULL, `room_latitude` varchar(50) NOT NULL, `room_longitude` varchar(50) NOT NULL, `max_radius` varchar(50) NOT NULL, `created_at` varchar(30) NOT NULL) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;

Pastikan bahwa anda harus click pada database name "*db_unklab*" dan selanjutnya click tab "SQL".
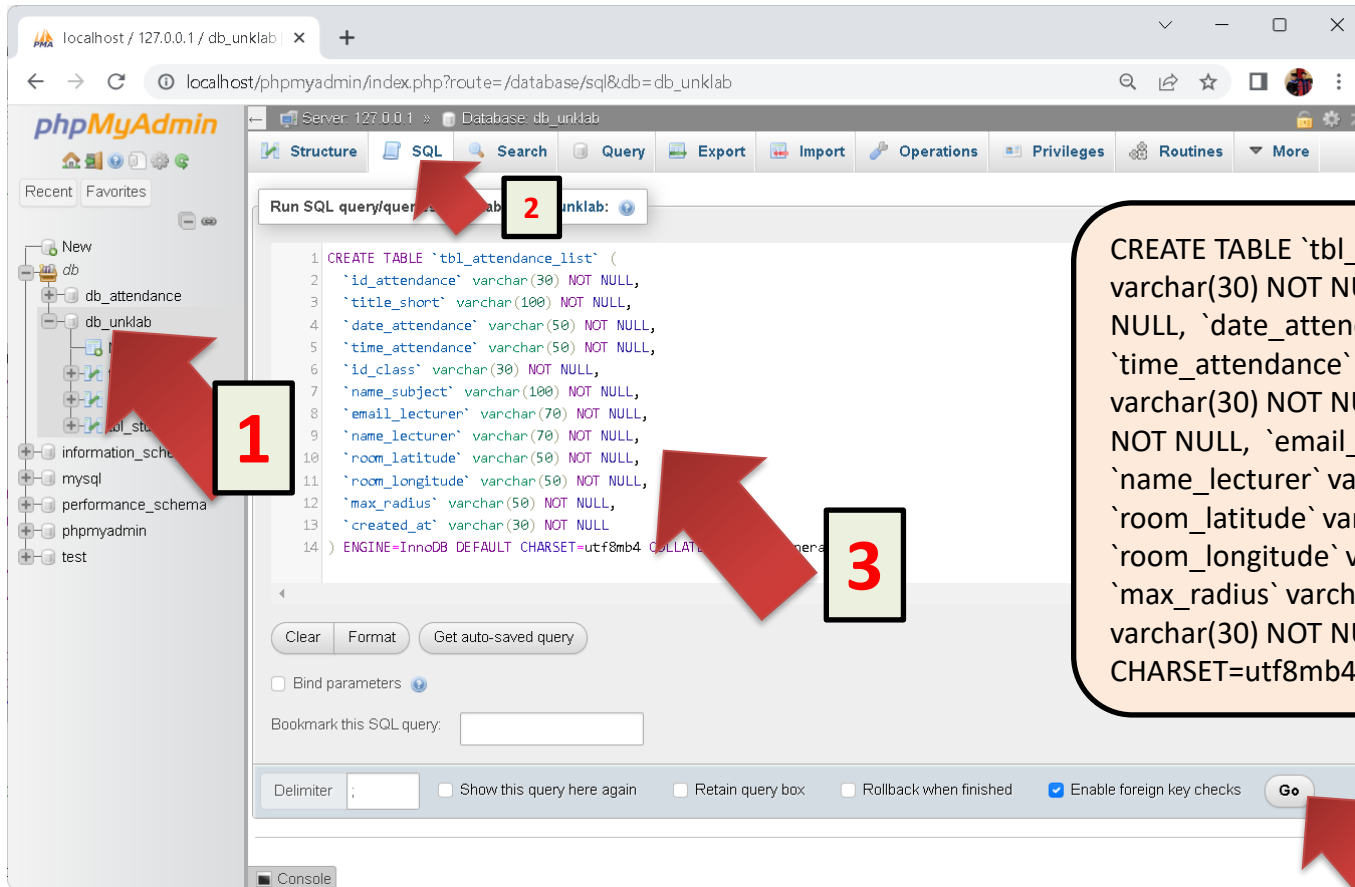
Create Table "tbl_attendance_history"
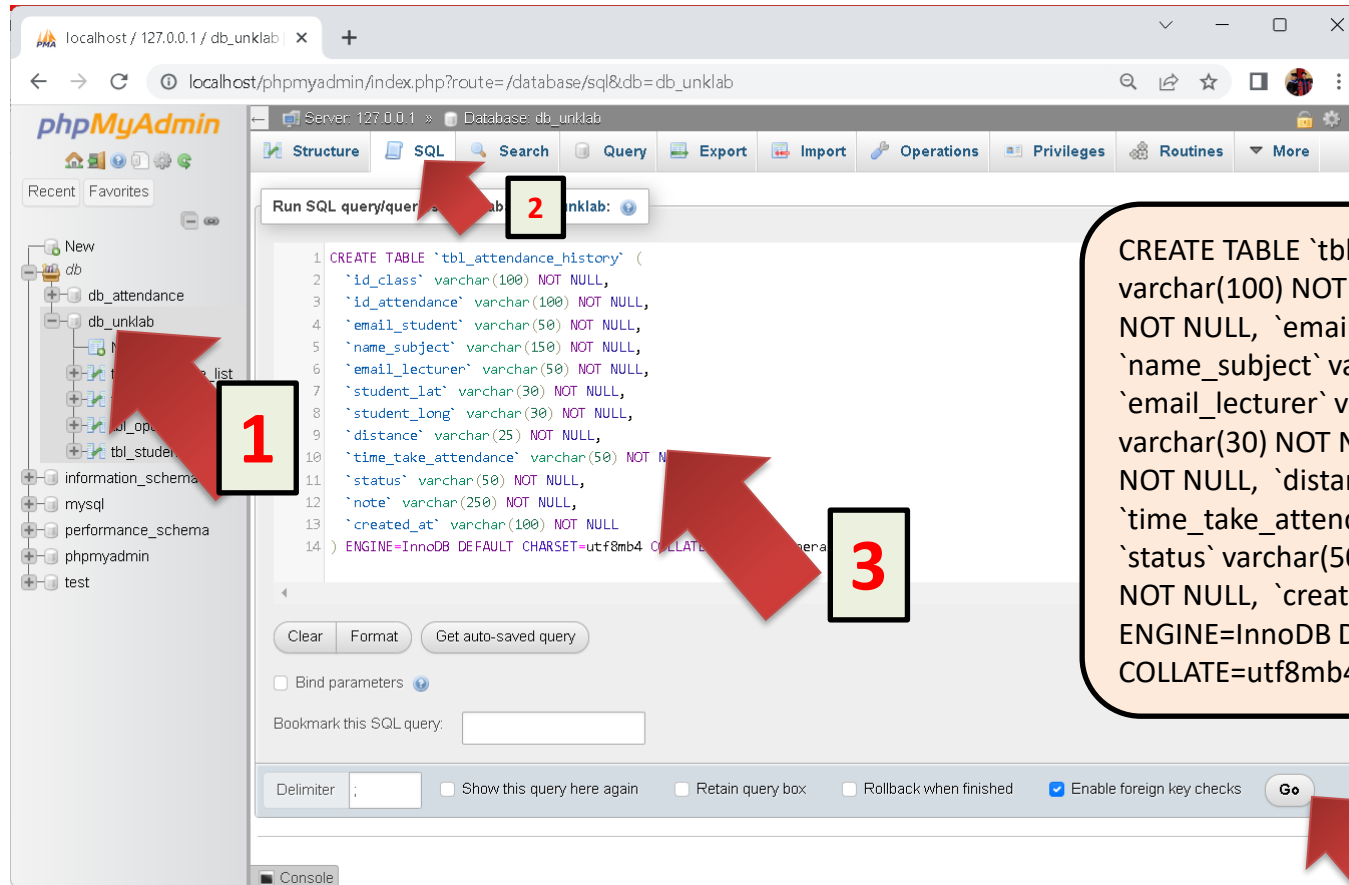
CREATE TABLE `tbl_attendance_history` (`id_class` varchar(100) NOT NULL, `id_attendance` varchar(100) NOT NULL, `email_student` varchar(50) NOT NULL, `name_subject` varchar(150) NOT NULL, `email_lecturer` varchar(50) NOT NULL, `student_lat` varchar(30) NOT NULL, `student_long` varchar(30) NOT NULL, `distance` varchar(25) NOT NULL, `time_take_attendance` varchar(50) NOT NULL, `status` varchar(50) NOT NULL, `note` varchar(250) NOT NULL, `created_at` varchar(100) NOT NULL) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
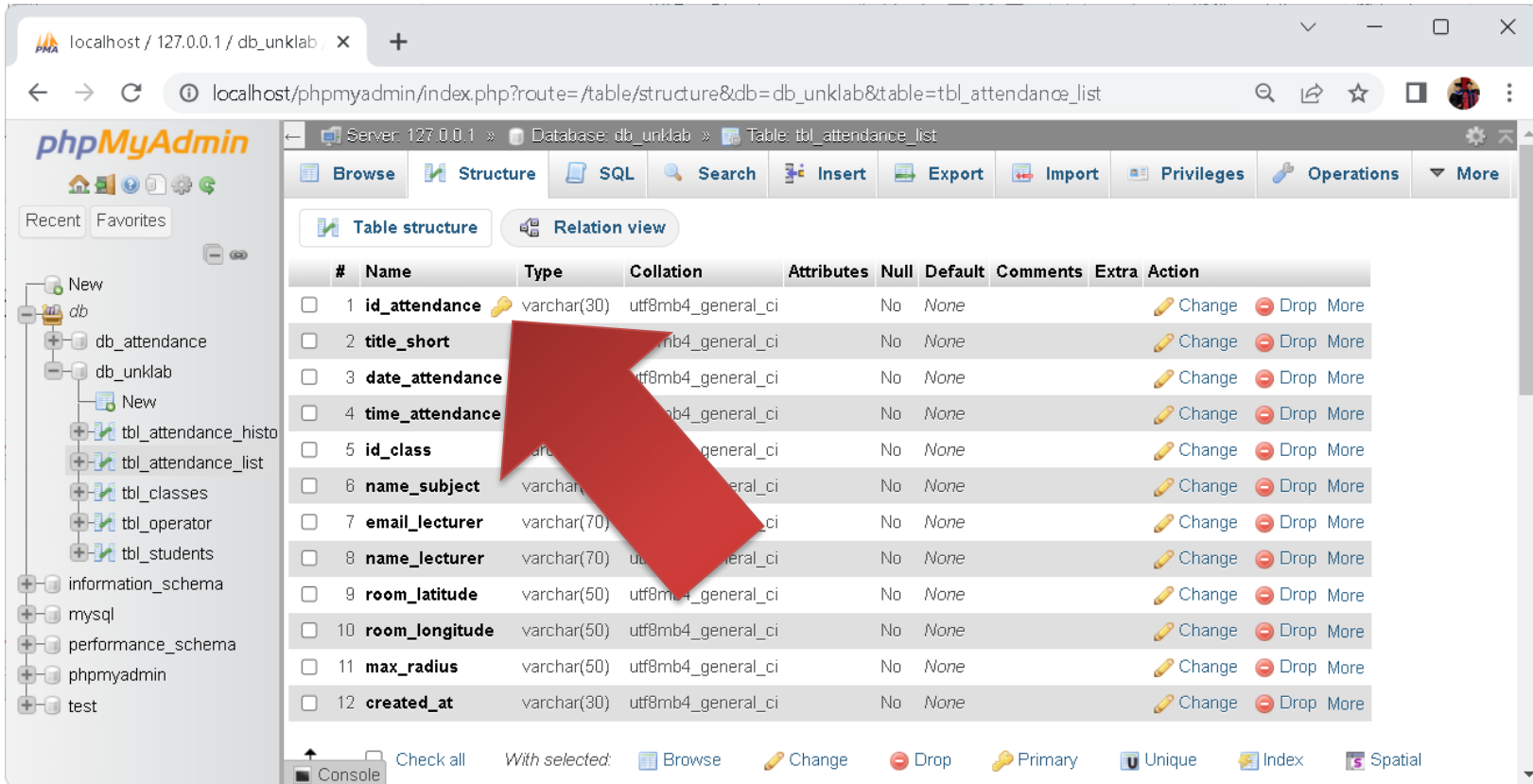
Pastikan bahwa anda harus *click* pada database name "*db_unklab*" dan selanjutnya click tab "SQL".
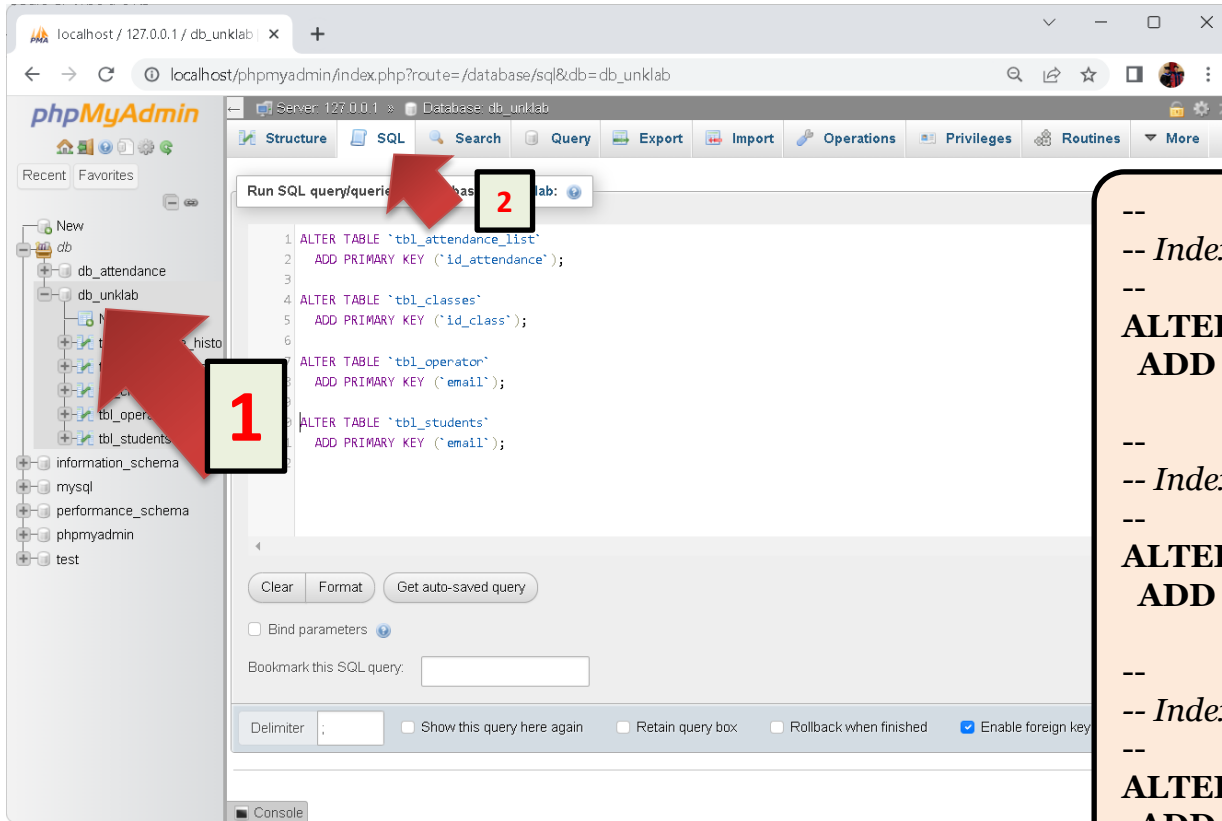
Add Primary Key *in* Tables


```
--
-- Indexes for table `tbl_attendance_list`
--
ALTER TABLE `tbl_attendance_list`
  ADD PRIMARY KEY (`id_attendance`);


--
-- Indexes for table `tbl_classes`
--
ALTER TABLE `tbl_classes`
  ADD PRIMARY KEY (`id_class`);


--
-- Indexes for table `tbl_operator`
--
ALTER TABLE `tbl_operator`
  ADD PRIMARY KEY (`email`);


--
-- Indexes for table `tbl_students`
--
ALTER TABLE `tbl_students`
  ADD PRIMARY KEY (`email`);
```

Check Primary Keys *in* Tables

Structure Tables *in* Database

Terdapat 5 *tables* yang telah dibuat pada *db_unklab*.

2 – Insert Data *in* Tables

How *to* Insert Data *in* Table?

Untuk menginputkan data ke dalam *table*, pastikan bahwa anda harus click pada ***table name*** yang menjadi target dan selanjutnya click tab "SQL".

Insert Table "tbl_student"

Data for table `tbl_students`

INSERT INTO `tbl_students` (`reg_number`, `nim_number`, `email`, `fullname`, `password`, `created_at`, `updated_at`) VALUES('123456789012', '154321', 's154321@student.unklab.ac.id', 'Radix Basalama', '12345', '2023-04-13 22:54:33', '2023-04-13 22:54:33'),('105021710031', '21710268', 's21710268@student.unklab.ac.id', 'Pongantung, Jeremy', '1234qwer', '12-12-2023 10:32-43', '12-12-2023 10:32-43'),('123456789012', '254321', 's254321@student.unklab.ac.id', 'Putra Podomi', '12345', '2023-04-13 22:54:33', '2023-04-13 22:54:33'),('123456789012', '354321', 's354321@student.unklab.ac.id', 'ChinChin Long', '12345', '2023-04-13 22:54:33', '2023-04-13 22:54:33'),('123456789012', '454321', 's454321@student.unklab.ac.id', 'Miehie Kawekiang Sie', '12345', '2023-04-13 22:54:33', '2023-04-13 22:54:33'),('123456789012', '554321', 's554321@student.unklab.ac.id', 'Dinda Manopo Putri', '12345', '2023-04-13 22:54:33', '2023-04-13 22:54:33'),('123456789012', '604321', 's604321@student.unklab.ac.id', 'Margono Raharjo', '12345', '2023-04-13 22:54:33', '2023-04-13 22:54:33'),('123456789012', '644321', 's644321@student.unklab.ac.id', 'Sempoyonangan Ojomiso', '12345', '2023-04-13 22:54:33', '2023-04-13 22:54:33'),('123456789012', '654321', 's654321@student.unklab.ac.id', 'David Kawekiang', '12345', '12-12-2023 10:32-43', '12-12-2023 10:32-43'),('123456789012', '754321', 's754321@student.unklab.ac.id', 'Citra Lentari Anada', '12345', '2023-04-13 22:54:33', '2023-04-13 22:54:33'),('123456789012', '854321', 's854321@student.unklab.ac.id', 'Sandra Dewi', '12345', '2023-04-13 22:54:33', '2023-04-13 22:54:33'),('123456789012', '954321', 's954321@student.unklab.ac.id', 'Putri Moningka', '12345', '2023-04-13 22:54:33', '2023-04-13 22:54:33');

Insert Table "tbl_operator"

Data for table `tbl_operator`

INSERT INTO `tbl_operator` (`nip`, `email`, `fullname`, `password`, `phone_number`, `role`, `created_at`, `updated_at`) VALUES(12345, 'andrewws@unklab.ac.id', 'Andrew Liem', 'abcd123', '0852123456', 'admin', '12-04-2023 12:04:32', '12-04-2023 12:04:32'),(12345, 'gledis@unklab.ac.id', 'Gladis Sepang', 'abcw1243', '0852123456', 'admin', '12-04-2023 12:04:32', '12-04-2023 12:04:32'),(876578, 'juanmambu@unklab.ac.id', 'Juan Taju', 'acbc1213', '0852123456', 'admin', '12-04-2023 12:04:32\r\n', '12-04-2023 12:04:32\r\n'),(34567, 'reymond@unklab.ac.id', 'Reymond Rotikan', '123475', '0852123456', 'staff', '12-04-2023 12:04:32', '12-04-2023 12:04:32'),(12345, 'semmytaju@unklab.ac.id', 'Semmy Wellem Taju', 'abc1233', '0852123456', 'admin', '12-04-2023 12:04:32', '12-04-2023 12:04:32'),(23456, 'stenlyadam@unklab.ac.id', 'Stenly Adam', '123425', '0852123456', 'admin', '12-04-2023 12:04:32', '12-04-2023 12:04:32');

Insert Table "tbl_classes"

Data for table `tbl_classes`

INSERT INTO `tbl_classes` (`id_class`, `email_lecturer`, `code_class`, `name_subject`, `name_lecturer`, `fakultas`, `prodi`, `sks`, `building_room`, `room_latitude`, `room_longitude`, `jadwal_class_day_time`, `daftar_email_student`, `created_at`, `status_class`) VALUES('CLASS64381629449e2', 'semmy@unklab.ac.id', '234ABCD', 'Java Programming', 'Semmy Wellem Taju', 'Fakultas Ekonomi', 'Pendidikan Keagamaan Kristen (Religious)', '3 SKS', 'GA Computer Lab 202/FIK', '1,4178155', '124,9844905', 'Selasa ~ Kamis, 08.00 - 10.00', 'semmy@unklab.ac.id,yonatan@gmail.com,jeremy@yahoo.com,s254321@student.unklab.ac.id,s354321@student.unklab.ac.id,s454321@student.unklab.ac.id,tajusemmy@yahoo.com,budiman@yahoo.com', '2023-04-13 22:48:47', 'complete'),('CLASS64381721a4505', 'semmy@unklab.ac.id', '2345ABC', 'Python Programming', 'Adam Stelly', 'Fakultas Pendidikan', 'Pendidikan Luar Sekolah (Non Formal Education)', '3 SKS', 'GK1-204 Comp. Lab (Hardware)', '1,4178155', '124,9844905', 'Senin ~ Rabu, 08.00 - 09.00', 's254321@student.unklab.ac.id,juan@yahoo.com,putra@gmail.com', '2023-04-13 22:54:33', 'complete'),('CLASS64383858ec58d', 'semmy@unklab.ac.id', 'AI3456S', 'Artificial Intelligence', 'Green Sandag', 'Fakultas Ilmu Komputer', 'Sistem Informasi (Information System)', '3 SKS', 'GK3-205', '1,4178155', '124,9844905', 'Senin ~ Rabu, 14.30 - 16.00', 'bobon@yhaoo.com,jeremy@yahoo.com,s154321@student.unklab.ac.id,s254321@student.unklab.ac.id,s354321@student.unklab.ac.id,semmy@yahoo.com,s454321@student.unklab.ac.id,budihardo@ggamil.com,s554321@student.unklab.ac.id,patricia@yahoo.com,s644321@student.unklab.ac.id,s654321@student.unklab.ac.id,s754321@student.unklab.ac.id', '2023-04-14 01:14:59', 'active'),('CLASS643838975a476', 'semmy@unklab.ac.id', 'PD23232S', 'Statistics and Probability', 'Semmy Wellem Taju', 'Fakultas Ilmu Komputer', 'Sistem Informasi (Information System)', '3 SKS', 'GK2-Tissue Culture Lab', '1,4178155', '124,9844905', 'Senin ~ Rabu, 08.00 - 09.00', 's154321@student.unklab.ac.id,moningkatri@gmail.com,brendaabu@yahoo.com,saturundes@gmail.com,eugenie@gmail.com,semmy@yahoo.com,s754321@student.unklab.ac.id,s954321@student.unklab.ac.id,ayu@yahoo.com,mandola@gamil.com,budi@gmail.chot.com', '2023-04-14 01:15:47', 'active'),('CLASS643a940726a3d', 'semmy@unklab.ac.id', 'MLC4335', 'Machine Learning Algorithms', 'Semmy Wellem Taju', 'Fakultas Ilmu Komputer', 'Pendidikan Keagamaan Kristen (Religious)', '3 SKS', 'GA Computer Lab 203/FIK', '1,4178155', '124,9844905', 'Selasa ~ Kamis, 07.00 - 08.30', 'semmy@yahoo.com,tajudespies@gmail.com', '2023-04-15 20:10:28', 'active'),('CLASS643aa53d7f8c9', 'semmy@unklab.ac.id', 'DBA984', 'Big Data Analysis', 'Stelly Adam', 'Fakultas Ilmu Komputer', 'Sistem Informasi (Information System)', '3 SKS', 'GK3-203', '1,4191753', '124,9845743', 'Senin ~ Rabu, 17.00 - 18.00', 'semmy@unklab.ac.id,s604321@student.unklab.ac.id,s654321@student.unklab.ac.id,s854321@student.unklab.ac.id,arnold@gmail.com,mawar@student.unklab.ac.id,semmytaju@yahoo.com', '2023-04-15 21:23:54', 'active'),('CLASS643ac4d56e4a8', 'semmy@unklab.ac.id', 'FED3464', 'Front-end Web Development', 'Raissa Maringka', 'Akademi Sekretari Manajemen Indonesia', 'Pendidikan Keagamaan Kristen (Religious)', '3 SKS', 'GA Computer Lab 202/FIK', '1,4174176', '124,9840658', 'Senin ~ Rabu, 14.30 - 16.00', 'budiy@gmail.com,s21710268@student.unklab.ac.id,jeremy@unklab.ac.id,semmy@yahoo.com', '2023-04-15 23:38:52', 'active'),('CLASS6445e32a2c21e', 'juan@unklab.ac.id', 'CN1264D', 'Computer Networking', 'Juan Taju', 'Fakultas Ilmu Komputer', 'Sistem Informasi (Information System)', '3 SKS', 'GA Computer Lab 202/FIK', '1,4174176', '124,9840658', 'Senin ~ Rabu, 10.00 - 12.00', '', '2023-04-24 10:03:03', 'active'),('CLASS6445e35cd31eb', 'juan@unklab.ac.id', 'HCI5644', 'Human Computer Interaction', 'Juan Taju', 'Fakultas Keperawatan', 'Pendidikan Ekonomi (Economy Education)', '3 SKS', 'GK1 Nursing Lab (Demo Room)', '1,4180611', '124,9845825', 'Senin ~ Rabu, 09.00 - 10.00', '', '2023-04-24 10:03:47', 'complete'),('CLASS6445e3981e4aa', 'juan@unklab.ac.id', 'NLP3456', 'Natural Language Processing', 'Juan Taju', 'Fakultas Ilmu Komputer', 'Pendidikan Keagamaan Kristen (Religious)', '3 SKS', 'GK2-104', '1,4171919', '124,9828838', 'Senin ~ Rabu, 09.30 - 11.00', '', '2023-04-24 10:05:11', 'active'),('CLASS6445f499431e6', 'juan@unklab.ac.id', 'ABC564D', 'Data Analytics', 'Juan Taju', 'Fakultas Filsafat', 'Bahasa Inggris (English)', '3 SKS', 'GA Computer Lab 202/FIK', '1,4174176', '124,9840658', 'Jumat, 09.00 - 10.00', '', '2023-04-24 11:17:17', 'active'),('CLASS6445f87da49d6', 'semmy@unklab.ac.id', 'GAC3678', 'Sentiment Analysis', 'Semmy Wellem Taju', 'Fakultas Ilmu Komputer', 'Filsafat (Philosophy)', '3 SKS', 'GK2-103', '1,4172063', '124,9828819', 'Selasa ~ Kamis, 09.00 - 10.00', 'buddyhars@gmail.com,eugenie@yahoo.com,patricia@gmail.com', '2023-04-24 11:34:05', 'active'),('CLASS6445f8b7ce4de', 'semmy@unklab.ac.id', 'APC496', 'Fundamental Apache PHP5', 'Semmy Wellem Taju', 'Fakultas Ilmu Komputer', 'Pendidikan Keagamaan Kristen (Religious)', '3 SKS', 'GK2-103', '1,4172063', '124,9828819', 'Senin ~ Rabu, 09.30 - 11.00', 'semmy@yahoo.com,putra@gmail.com,tampijeni@yahoo.com', '2023-04-24 11:34:57', 'active');

Insert Table "tbl_attendance_list"

Data for table `tbl_attendance_list`

INSERT INTO `tbl_attendance_list` (`id_attendance`, `title_short`, `date_attendance`, `time_attendance`, `id_class`, `name_subject`, `email_lecturer`, `name_lecturer`, `room_latitude`, `room_longitude`, `max_radius`, `created_at`) VALUES('ATD665ac4d56e4b7', 'Attendance #1', '21 April 2023', '10.30 - 11.30', 'CLASS663ac4d56e4a8', 'Research Method', 'andrew@unklab.ac.id', 'Andrew Liem', '1,4174176', '124,9840658', '20', '12-12-2023 10:32-43'),('ATD745ac4d56e4b7', 'Attendance #1', '17 April 2023', '14.00 - 15.00', 'CLASS643ac4d56e4a8', 'Big Data Analysis', 'semmy@unklab.ac.id', 'Semmy Wellem Taju', '1,4174176', '124,9840658', '100', '12-12-2023 10:32-43'),('ATD745ac4d56e4c7', 'Attendance #2', '26 April 2023', '09.30 - 10.40', 'CLASS643ac4d56e4a8', 'System Analysis and Design', 'semmy@unklab.ac.id', 'Semmy Wellem Taju', '1,20438484', '124,343566', '200', '12-12-2023 10:32-43'),('ATD788ac4d56e4b7', 'Attendance #1', '20 April 2023', '08.30 - 19.30', 'CLASS883ac4d56e4a8', 'Front-end Web Development', 'reymond@unklab.ac.id', 'Reymond Rotikan', '1,4174176', '124,9840658', '50', '12-12-2023 10:32-43'),('ATD995ac4d56e4b7', 'Attendance #1', '19 April 2023', '07.30 - .0830', 'CLASS993ac4d56e4a8', 'Computer Networkings', 'stelly@unklab.ac.id', 'Stelly Adam', '1,4174176', '124,9840658', '40', '12-12-2023 10:32-43'),('ATTE6444526a2e1b7', 'Attendance #3', '26 April 2023', '08.00 - 10.00', 'CLASS643aa53d7f8c9', 'Big Data Analysis', 'semmy@unklab.ac.id', 'Stelly Adam', '1,4191753', '124,9845743', '200', '2023-04-23 05:32:50'),('ATTE64445305d6cee', 'Attendance #3', '29 April 2023', '07.00 - 08.30', 'CLASS643ac4d56e4a8', 'Front-end Web Development', 'semmy@unklab.ac.id', 'Raissa Maringka', '1,4174176', '124,9840658', '250', '2023-04-23 05:35:45'),('ATTE6445b2210cf5c', 'Attendance #15', '18 April 2023', '20.00 - 21.00', 'CLASS643aa53d7f8c9', 'Big Data Analysis', 'semmy@unklab.ac.id', 'Stelly Adam', '1,4191753', '124,9845743', '150', '2023-04-24 06:33:58'),('ATTE6445f3cb39bca', 'Attedance #1', '24 April 2023', '07.00 - 08.30', 'CLASS6445e3981e4aa', 'Natural Language Processing', 'juan@unklab.ac.id', 'Juan Taju', '1,4171919', '124,9828838', '100', '2023-04-24 11:13:42'),('ATTE64462606d35a3', 'Attendance #1', '24 April 2023', '08.00 - 09.00', 'CLASS64383858ec58d', 'Artificial Intelligence', 'semmy@unklab.ac.id', 'Green Sandag', '1,4178155', '124,9844905', '50', '2023-04-24 14:47:56'),('ATTE6446261c86db6', 'Attendance #2', '26 April 2023', '10.00 - 11.00', 'CLASS64383858ec58d', 'Artificial Intelligence', 'semmy@unklab.ac.id', 'Green Sandag', '1,4178155', '124,9844905', '60', '2023-04-24 14:48:44'),('ATTE644647fba4842', 'Attendance #4', '30 April 2023', '13.00 - 14.30', 'CLASS643ac4d56e4a8', 'Front-end Web Development', 'semmy@unklab.ac.id', 'Raissa Maringka', '1,4174176', '124,9840658', '70', '2023-04-24 17:12:55'),('ATTE6447363ab836f', 'Attendance #5', '26 April 2023', '08.00 - 09.00', 'CLASS643ac4d56e4a8', 'Front-end Web Development', 'semmy@unklab.ac.id', 'Raissa Maringka', '1,4174176', '124,9840658', '70', '2023-04-25 10:11:08'),('ATTE644754987cf94', 'Attendance #1', '25 April 2023', '07.00 - 08.30', 'CLASS6445f8b7ce4de', 'Fundamental Apache PHP5', 'semmy@unklab.ac.id', 'Semmy Wellem Taju', '1,4172063', '124,9828819', '60', '2023-04-25 12:18:56'),('ATTE644754b0cdcab', 'Attendance #2', '27 April 2023', '08.00 - 09.00', 'CLASS6445f8b7ce4de', 'Fundamental Apache PHP5', 'semmy@unklab.ac.id', 'Semmy Wellem Taju', '1,4172063', '124,9828819', '150', '2023-04-25 12:19:13'),('ATTE6451d686525a0', 'Attendance #1', '04 May 2023', '07.00 - 08.30', 'CLASS643838975a476', 'Statistics and Probability', 'semmy@unklab.ac.id', 'Semmy Wellem Taju', '1,4178155', '124,9844905', '60', '2023-05-03 11:36:12'),('ATTE6451d6b52ba51', 'Attendance #2', '04 May 2023', '08.00 - 09.00', 'CLASS643838975a476', 'Statistics and Probability', 'semmy@unklab.ac.id', 'Semmy Wellem Taju', '1,4178155', '124,9844905', '70', '2023-05-03 11:36:46'),('ATTE6451d6ce98d25', 'Pertemuan ke-3', '06 May 2023', '08.00 - 09.00', 'CLASS643838975a476', 'Statistics and Probability', 'semmy@unklab.ac.id', 'Semmy Wellem Taju', '1,4178155', '124,9844905', '60', '2023-05-03 11:37:06'),('ATTE6451daee51b0a', 'Attendance #3', '04 May 2023', '08.00 - 09.00', 'CLASS6445f8b7ce4de', 'Fundamental Apache PHP5', 'semmy@unklab.ac.id', 'Semmy Wellem Taju', '1,4172063', '124,9828819', '70', '2023-05-03 11:54:45'),('ATTE6451db0537079', 'Attendance #4', '05 May 2023', '07.00 - 09.00', 'CLASS6445f8b7ce4de', 'Fundamental Apache PHP5', 'semmy@unklab.ac.id', 'Semmy Wellem Taju', '1,4172063', '124,9828819', '60', '2023-05-03 11:54:57'),('ATTE6451db115ba2c', 'Attendance #5', '04 May 2023', '07.00 - 09.00', 'CLASS6445f8b7ce4de', 'Fundamental Apache PHP5', 'semmy@unklab.ac.id', 'Semmy Wellem Taju', '1,4172063', '124,9828819', '60', '2023-05-03 11:55:08'),('ATTE6451db1ca165d', 'Attendance #6', '08 May 2023', '08.00 - 09.00', 'CLASS6445f8b7ce4de', 'Fundamental Apache PHP5', 'semmy@unklab.ac.id', 'Semmy Wellem Taju', '1,4172063', '124,9828819', '80', '2023-05-03 11:55:23'),('ATTE6451db64f1047', 'Pertemuan ke-4', '05 May 2023', '07.00 - 09.00', 'CLASS643838975a476', 'Statistics and Probability', 'semmy@unklab.ac.id', 'Semmy Wellem Taju', '1,4178155', '124,9844905', '60', '2023-05-03 11:56:36'),('ATTE6451db74d7759', 'Pertemuan ke-5', '05 May 2023', '07.00 - 09.00', 'CLASS643838975a476', 'Statistics and Probability', 'semmy@unklab.ac.id', 'Semmy Wellem Taju', '1,4178155', '124,9844905', '70', '2023-05-03 11:56:46');

Insert Table "tbl_attendance_history"

Data for table `tbl_attendance_history`

INSERT INTO `tbl_attendance_history` (`id_class`, `id_attendance`, `email_student`, `name_subject`, `email_lecturer`, `student_lat`, `student_long`, `distance`, `time_take_attendance`, `status`, `note`, `created_at`) VALUES('CLASS643ac4d56e4a8', 'ATD745ac4d56e4b7', 's354321@student.unklab.ac.id', 'Artificial Intelligence', 'semmy@unklab.ac.id', '1,239484', '124,348583', '10', '10:15:49', 'P', '', '2023-04-13 22:54:33'),('CLASS643ac4d56e4a8', 'ATD745ac4d56e4b7', 's154321@student.unklab.ac.id', 'Artificial Intelligence', 'semmy@unklab.ac.id', '1,239484', '124,348583', '16', '10:00:49', 'P', '', '2023-04-13 22:54:33'),('CLASS643ac4d56e4a8', 'ATD745ac4d56e4b7', 's254321@student.unklab.ac.id', 'Artificial Intelligence', 'semmy@unklab.ac.id', '1,239484', '124,348583', '12', '10:05:49', 'P', '', '2023-04-13 22:54:33'),('CLASS643ac4d56e4a8', 'ATD745ac4d56e4b7', 's354321@student.unklab.ac.id', 'Artificial Intelligence', 'semmy@unklab.ac.id', '1,239484', '124,348583', '20', '10:08:49', 'P', '', '2023-04-13 22:54:33'),('CLASS643ac4d56e4a8', 'ATD745ac4d56e4b7', 's454321@student.unklab.ac.id', 'Artificial Intelligence', 'semmy@unklab.ac.id', '1,239484', '124,348583', '15', '10:20:49', 'P', '', '2023-04-13 22:54:33'),('CLASS643ac4d56e4a8', 'ATD745ac4d56e4b7', 's554321@student.unklab.ac.id', 'Artificial Intelligence', 'semmy@unklab.ac.id', '1,239484', '124,348583', '6', '10:30:49', 'P', '', '2023-04-13 22:54:33'),('CLASS643ac4d56e4a8', 'ATD745ac4d56e4b7', 's644321@student.unklab.ac.id', 'Artificial Intelligence', 'semmy@unklab.ac.id', '1,239484', '124,348583', '7', '10:45:49', 'P', '', '2023-04-13 22:54:33'),('CLASS643ac4d56e4a8', 'ATD745ac4d56e4b7', 's654321@student.unklab.ac.id', 'Artificial Intelligence', 'semmy@unklab.ac.id', '1,239484', '124,348583', '8', '10:27:49', 'P', '', '2023-04-13 22:54:33'),('CLASS643838975a476', 'ATTE6451d6ce98d25', 's154321@student.unklab.ac.id', 'Statistics and Probability', 'semmy@unklab.ac.id', '0', '0', '0', '0', 'P', 'Hadir', '2023-05-03 11:37:39'),('CLASS643838975a476', 'ATTE6451d6ce98d25', 's754321@student.unklab.ac.id', 'Statistics and Probability', 'semmy@unklab.ac.id', '0', '0', '0', '0', 'L', 'Datang terlambat', '2023-05-03 11:37:58'),('CLASS643838975a476', 'ATTE6451d6ce98d25', 'mandola@gamil.com', 'Statistics and Probability', 'semmy@unklab.ac.id', '0', '0', '0', '0', 'E', 'Sakit', '2023-05-03 11:38:20'),('CLASS6445f8b7ce4de', 'ATTE6451db1ca165d', 'semmy@yahoo.com', 'Fundamental Apache PHP5', 'semmy@unklab.ac.id', '0', '0', '0', '0', 'P', '', '2023-05-03 11:55:46'),('CLASS6445f8b7ce4de', 'ATTE6451db1ca165d', 'putra@gmail.com', 'Fundamental Apache PHP5', 'semmy@unklab.ac.id', '0', '0', '0', '0', 'E', 'Sakit', '2023-05-03 11:55:54');

3 – Backup Database MySQL PHPMyAdmin

How *to* Backup Database MySQL?

1) **Buka PHPMyAdmin:** Akses halaman PHPMyAdmin melalui browser dengan memasukkan URL yang sesuai. Biasanya, alamat default adalah ***http://localhost/phpmyadmin*** atau sesuai dengan konfigurasi server.

2) **Masuk ke PHPMyAdmin:** Masukkan nama pengguna (username) dan kata sandi (password) MySQL yang valid untuk masuk ke antarmuka PHPMyAdmin.

3) **Pilih Database:** Setelah masuk, **pilih database yang ingin di backup** dari panel kiri. Jika tidak ada database yang terlihat, pastikan telah membuat dan mengimpor database sebelumnya.

4) **Pilih Tab "Export":** Di bagian atas antarmuka PHPMyAdmin, temukan tab **"Export"** dan klik. Ini secara otomatis akan diarahkan ke halaman ekspor database.

Export MySQL Database

1) **Pilih Database:** Pertama yang harus dilakukan adalah **memilih database yang ingin di backup** dari panel kiri. Jika tidak ada database yang terlihat, pastikan telah membuat dan mengimpor database sebelumnya.

2) **Pilih Tab "Export":** Di bagian atas antarmuka PHPMyAdmin, temukan tab "**Export**" dan klik. Ini secara otomatis akan diarahkan ke halaman ekspor database.

Export MySQL Database
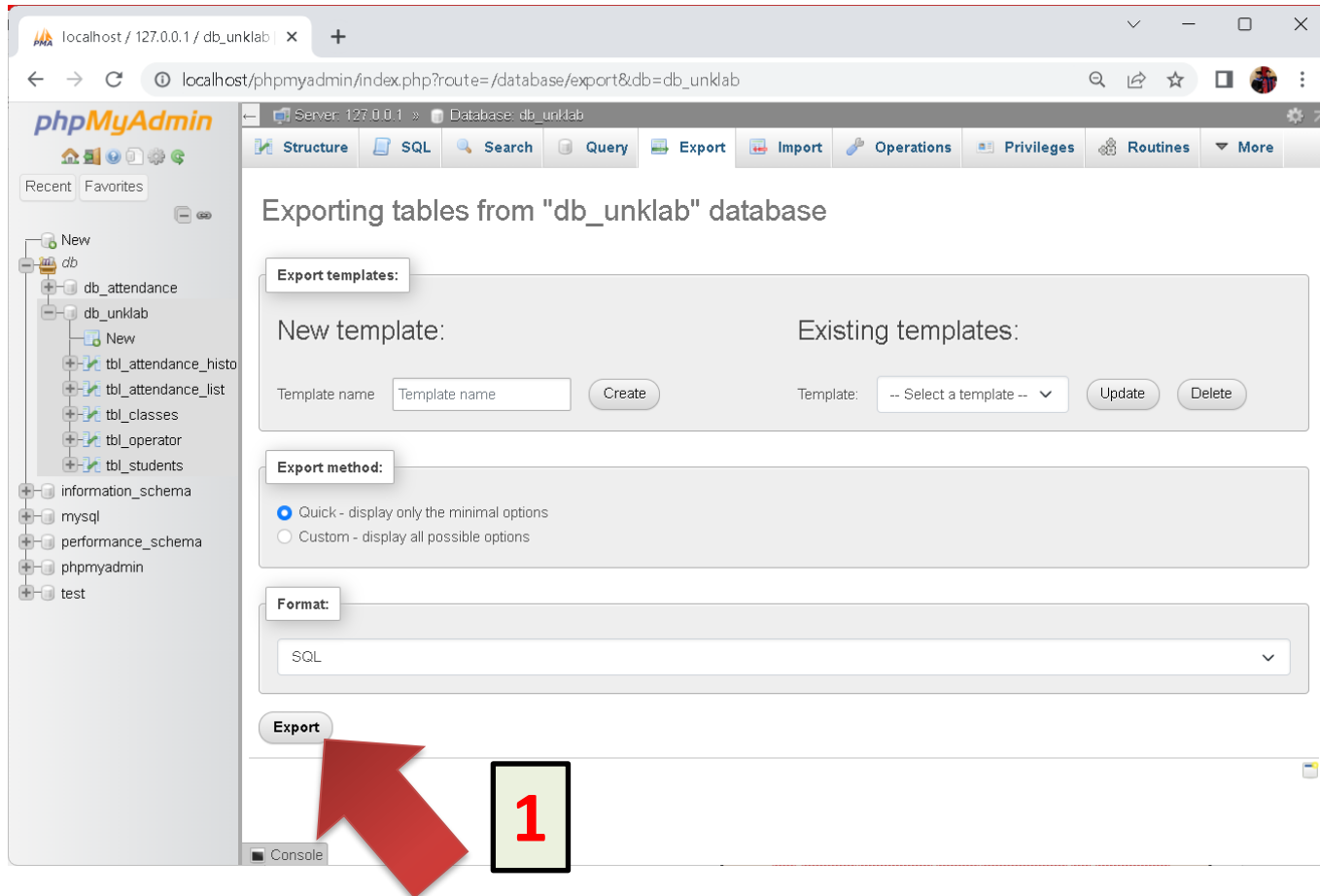
Pilih format *file* yang akan di export, selanjutnya Kalian bisa secara langsung click button "**Export**" dan sistem akan mendownload secara otomatis file dengan nama "***db_unklab.sql***".

Backup File Downloaded

4 – Display Data *in* Browser
(HTML, Bootstrap 5 and PHP)

Create New Working Dir
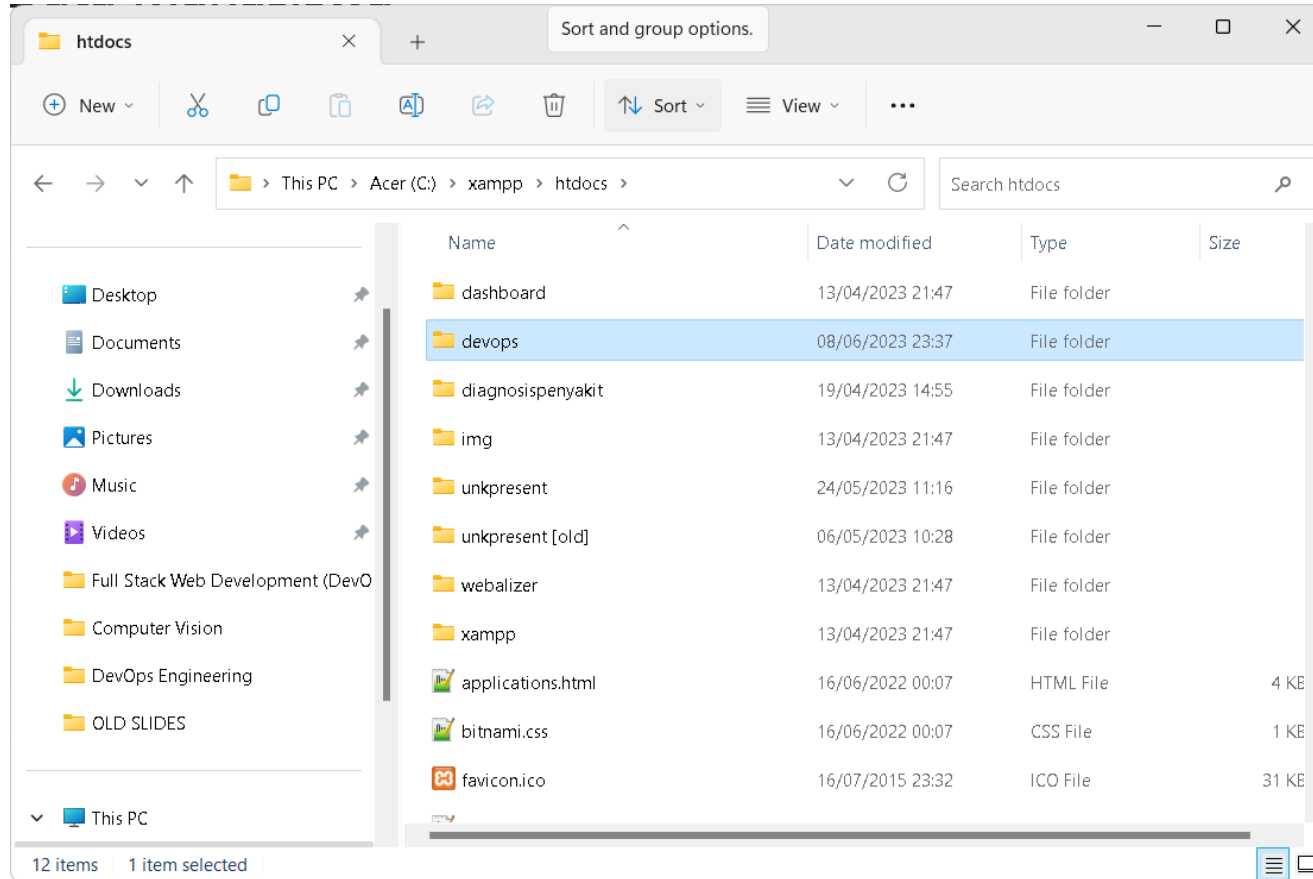
Buat sebuah directory baru "**devops**" di dalam "**htdocs**".

Create New Files
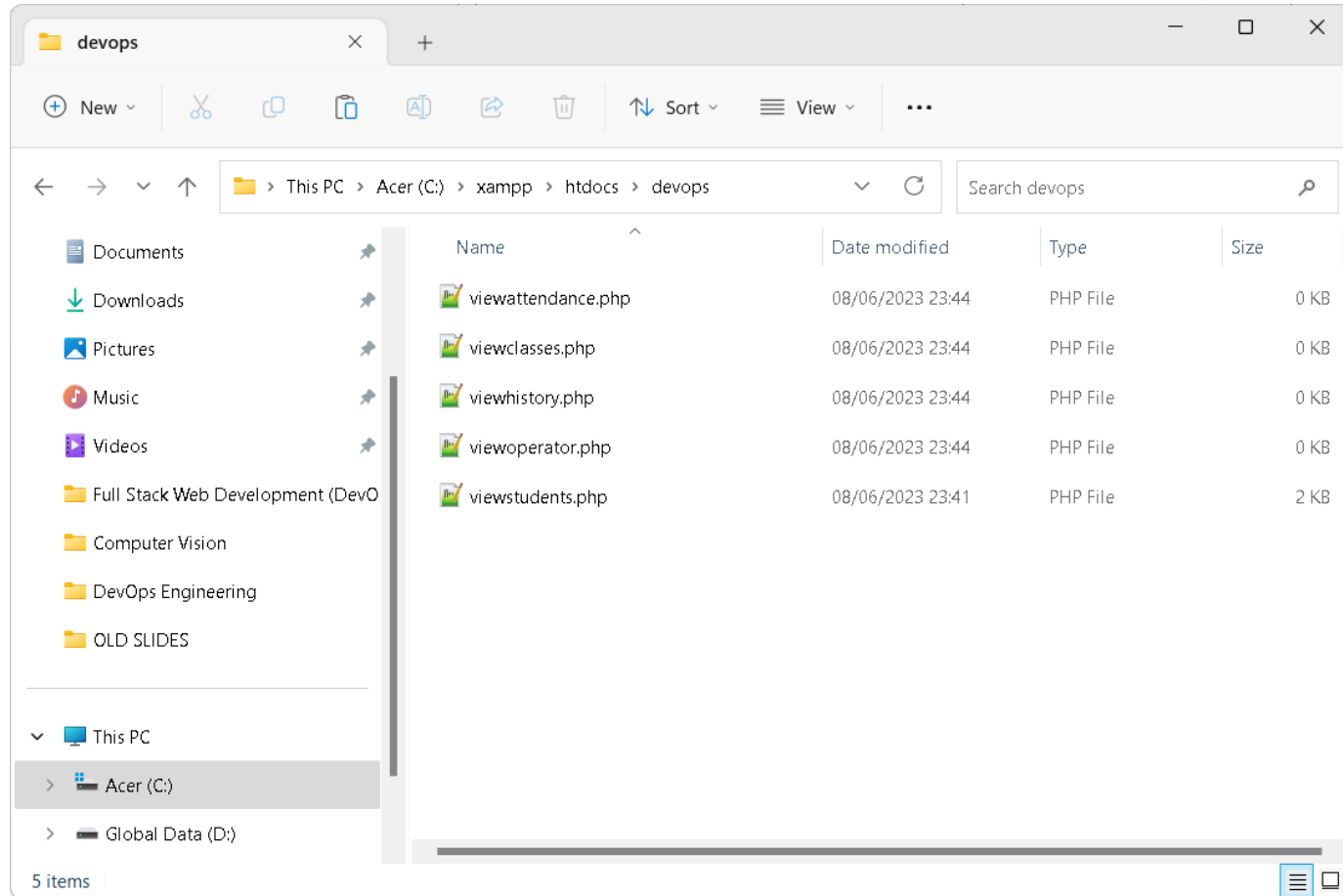
Buat 5 files di dalam working directory untuk menampilkan data pada setiap table.

Write File "**viewstudents.php**"
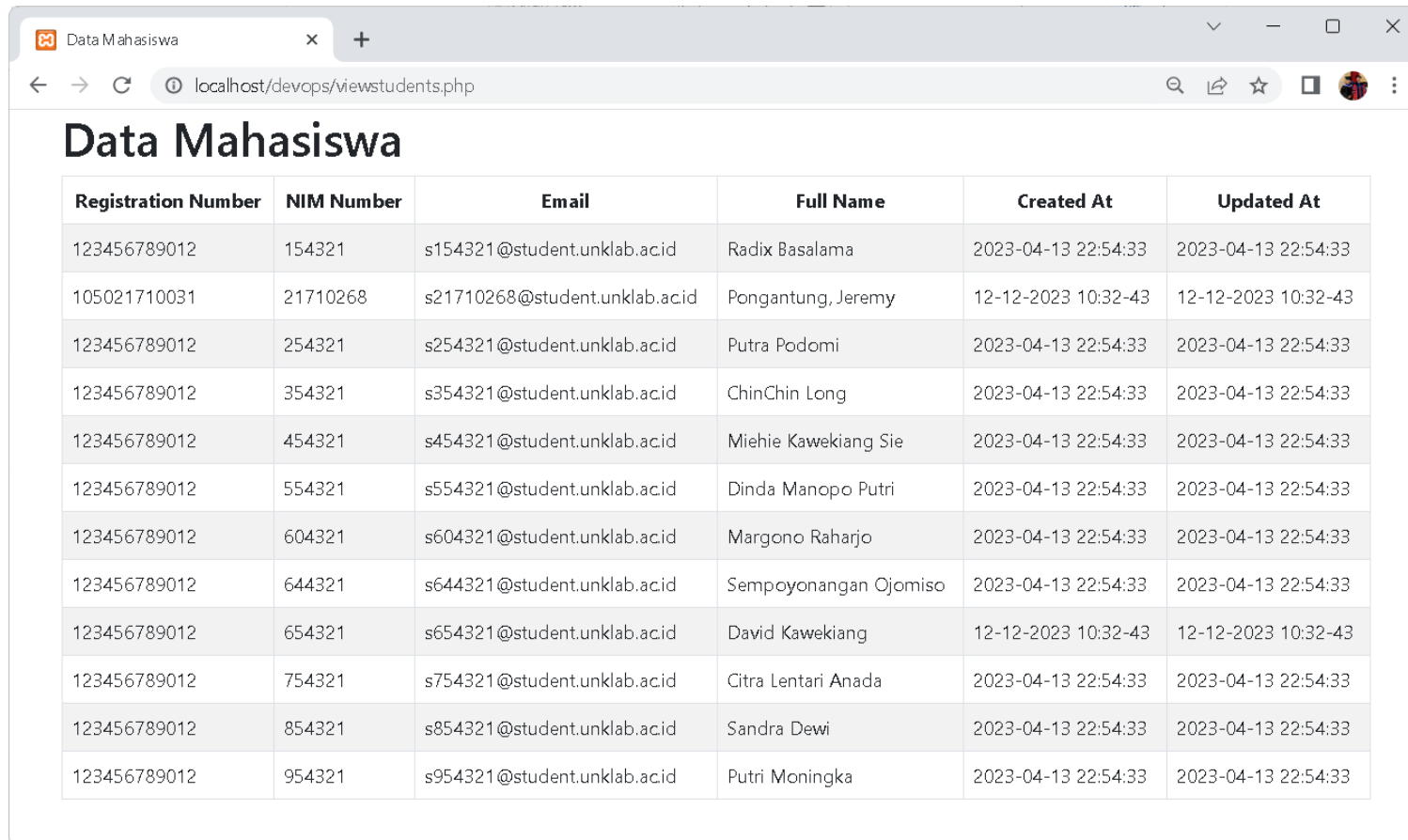
```
viewstudents.php

1   <!DOCTYPE html>
2   <html>
3   <head>
4     <title>Data Mahasiswa</title>
5     <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css">
6   </head>
7   <body>
8     <div class="container">
9       <h1>Data Mahasiswa</h1>
10      <table class="table table-striped table-bordered table-hover">
11        <thead>
12          <tr>
13            <th class="text-center">Registration Number</th>
14            <th class="text-center">NIM Number</th>
15            <th class="text-center">Email</th>
16            <th class="text-center">Full Name</th>
17            <th class="text-center">Created At</th>
18            <th class="text-center">Updated At</th>
19          </tr>
20        </thead>
21        <tbody>
22          <?php
23          // Koneksi ke database
24          $conn = mysqli_connect('localhost', 'root', '12345', 'db_unklab');
25
26          // Periksa koneksi
27          if (!$conn) {
28            die("Koneksi gagal: " . mysqli_connect_error());
29          }
30
31          // Query untuk mendapatkan data mahasiswa
32          $sql = "SELECT * FROM tbl_students";
33          $result = mysqli_query($conn, $sql);
34
35          // Tampilkan data dalam tabel
36          if (mysqli_num_rows($result) > 0) {
37            while ($row = mysqli_fetch_assoc($result)) {
38              echo "<tr>";
39              echo "<td>" . $row['reg_number'] . "</td>";
40              echo "<td>" . $row['nim_number'] . "</td>";
41              echo "<td>" . $row['email'] . "</td>";
42              echo "<td>" . $row['fullname'] . "</td>";
43              echo "<td>" . $row['created_at'] . "</td>";
44              echo "<td>" . $row['updated_at'] . "</td>";
45              echo "</tr>";
```

```
45              echo "</tr>";
46            }
47          } else {
48            echo "<tr><td colspan='6'>Tidak ada data mahasiswa.</td></tr>";
49          }
50
51          // Tutup koneksi
52          mysqli_close($conn);
53          ?>
54        </tbody>
55      </table>
56    </div>
57  </body>
58  </html>
```

Display Data *via* Browser

Open this link in your browser:
http://localhost/devops/viewstudents.php

Data Mahasiswa

Registration Number	NIM Number	Email	Full Name	Created At	Updated At
123456789012	154321	s154321@student.unklab.ac.id	Radix Basalama	2023-04-13 22:54:33	2023-04-13 22:54:33
105021710031	21710268	s21710268@student.unklab.ac.id	Pongantung, Jeremy	12-12-2023 10:32-43	12-12-2023 10:32-43
123456789012	254321	s254321@student.unklab.ac.id	Putra Podomi	2023-04-13 22:54:33	2023-04-13 22:54:33
123456789012	354321	s354321@student.unklab.ac.id	ChinChin Long	2023-04-13 22:54:33	2023-04-13 22:54:33
123456789012	454321	s454321@student.unklab.ac.id	Miehie Kawekiang Sie	2023-04-13 22:54:33	2023-04-13 22:54:33
123456789012	554321	s554321@student.unklab.ac.id	Dinda Manopo Putri	2023-04-13 22:54:33	2023-04-13 22:54:33
123456789012	604321	s604321@student.unklab.ac.id	Margono Raharjo	2023-04-13 22:54:33	2023-04-13 22:54:33
123456789012	644321	s644321@student.unklab.ac.id	Sempoyonangan Ojomiso	2023-04-13 22:54:33	2023-04-13 22:54:33
123456789012	654321	s654321@student.unklab.ac.id	David Kawekiang	12-12-2023 10:32-43	12-12-2023 10:32-43
123456789012	754321	s754321@student.unklab.ac.id	Citra Lentari Anada	2023-04-13 22:54:33	2023-04-13 22:54:33
123456789012	854321	s854321@student.unklab.ac.id	Sandra Dewi	2023-04-13 22:54:33	2023-04-13 22:54:33
123456789012	954321	s954321@student.unklab.ac.id	Putri Moningka	2023-04-13 22:54:33	2023-04-13 22:54:33

"Next, it's your turn!!!"

Modifikasi *code* yang sudah dibuat dan tampilkan semua data yang ada pada *table*:

1) **tbl_attendance_history**

2) **tbl_attendance_list**

3) **tbl_classes**

4) **tbl_operator**

5) ~~tbl_students~~
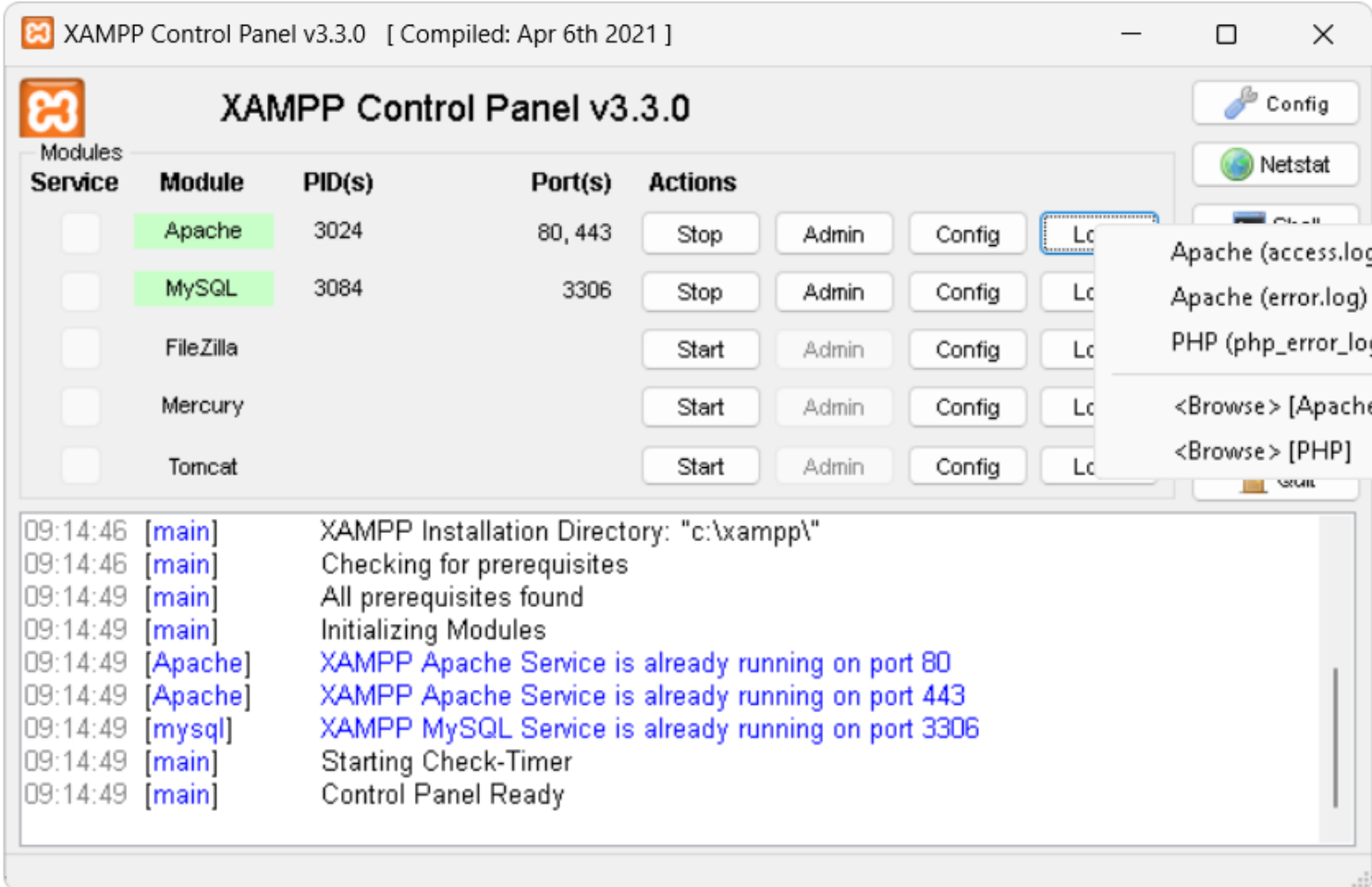
Challenge *for* Students

1. Tambahkan sebuah button **"Insert New Data"** pada masing-masing halaman website yang telah dibuat.

2. Buat penanganan **event handling button** tersebut menggunakan Jquery dan Action Submit Form.

3. Buat penanganan komunikasi ke *server* (*send/request*) menggunakan AJAX dan PHP code.

4. Gunakan type request "POST/GET" atau sesuikan dengan data yang akan di kirim ke sisi *server* atau diterima dari sisi *server*.

5 – Monitoring & Error Logging

Manually View Apache Error Log

Open Web Server Logs

Http Log Viewer adalah *tool* atau *software* yang dirancang khusus untuk membantu dalam membaca, memantau, dan menganalisis **log HTTP server**. Ini memungkinkan kita untuk melihat catatan *log* yang dihasilkan oleh server web, seperti Apache atau Nginx, yang mencatat permintaan dan respons HTTP.

Http Logs Viewer

Dengan memonitor **log error Apache**, kita dapat mengidentifikasi masalah, menjaga kesehatan, keamanan, dan kinerja web server yang kita kelolah. Ini membantu memastikan bahwa situs web atau aplikasi berjalan dengan baik dan memberikan pengalaman yang baik bagi *users*.
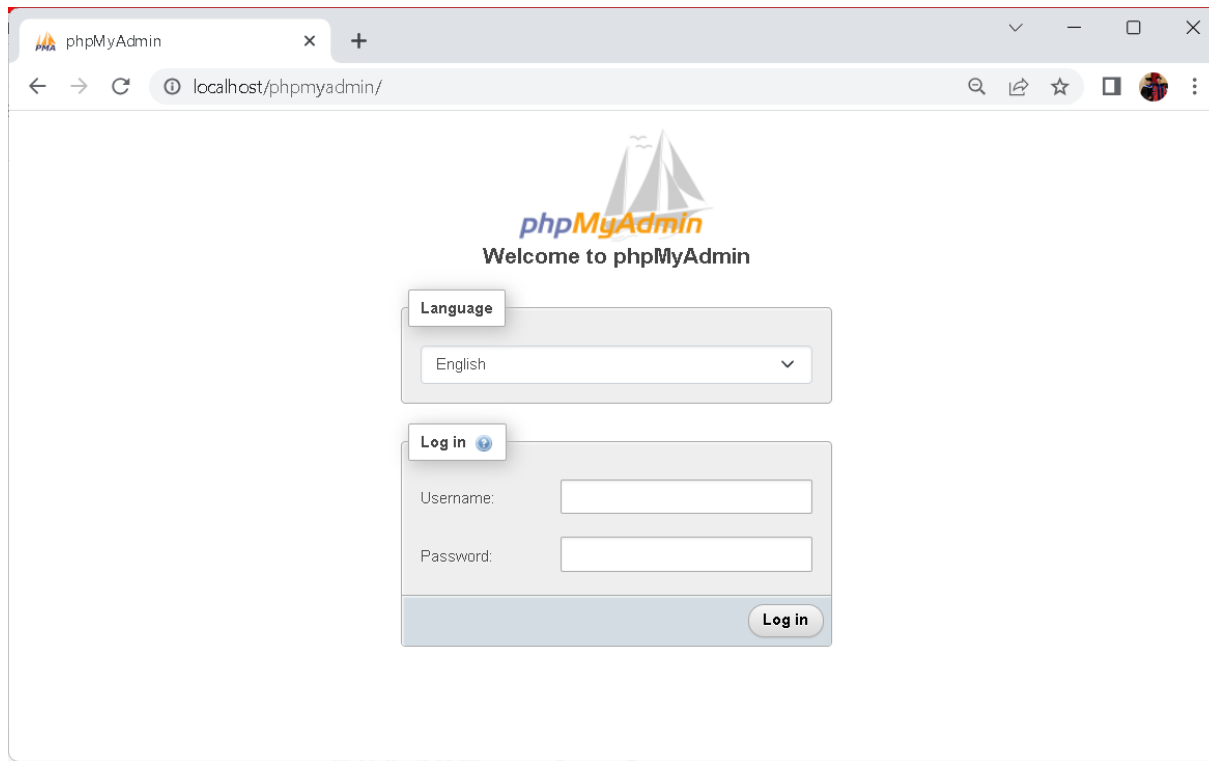
Pada saat kalian buat *virtual server*, phpMyAdmin sudah diinstall dan sudah bisa di akses via **public IP address** nanti. Apakah kalian berpikir bahwa *login form* ini akan aman-aman saja tanpa serangan atau aktivitas mencurigakan???

Monitoring Security Issues

Remember this !!!

Log error Apache dapat memberikan informasi tentang upaya **serangan atau aktivitas mencurigakan**. Beberapa serangan atau celah keamanan dapat menghasilkan pesan error tertentu. Dengan memantau *log error*, kita dapat mendeteksi aktivitas yang mencurigakan dan mengambil langkah-langkah untuk meningkatkan keamanan *server*.

```
Sep 16 00:07:51 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:07:54 presensi phpMyAdmin[18162]: message repeated 4 times: [ user denied: root (mysql-denied) from 192.3.228.147]
Sep 16 00:07:55 presensi phpMyAdmin[18162]: user denied: phpmyadmin (mysql-denied) from 192.3.228.147
Sep 16 00:07:55 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:07:56 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:07:56 presensi phpMyAdmin[18162]: user denied: admin (mysql-denied) from 192.3.228.147
Sep 16 00:07:57 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:07:57 presensi phpMyAdmin[18162]: user denied: web (mysql-denied) from 192.3.228.147
Sep 16 00:07:58 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:07:59 presensi phpMyAdmin[18162]: message repeated 3 times: [ user denied: root (mysql-denied) from 192.3.228.147]
Sep 16 00:08:00 presensi phpMyAdmin[18162]: user denied: wordpress (mysql-denied) from 192.3.228.147
Sep 16 00:08:00 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:08:02 presensi phpMyAdmin[18162]: message repeated 3 times: [ user denied: root (mysql-denied) from 192.3.228.147]
Sep 16 00:08:02 presensi phpMyAdmin[18162]: user denied: developer (mysql-denied) from 192.3.228.147
Sep 16 00:08:03 presensi phpMyAdmin[18162]: user denied: dbs (mysql-denied) from 192.3.228.147
Sep 16 00:08:03 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:08:04 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:08:04 presensi phpMyAdmin[18162]: user denied: wp (mysql-denied) from 192.3.228.147
Sep 16 00:08:05 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:08:09 presensi phpMyAdmin[18162]: message repeated 8 times: [ user denied: root (mysql-denied) from 192.3.228.147]
Sep 16 00:08:09 presensi phpMyAdmin[18162]: user denied: newuser (mysql-denied) from 192.3.228.147
Sep 16 00:08:10 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:08:10 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:08:11 presensi phpMyAdmin[18162]: user denied: database (mysql-denied) from 192.3.228.147
Sep 16 00:08:11 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:08:12 presensi phpMyAdmin[18162]: message repeated 2 times: [ user denied: root (mysql-denied) from 192.3.228.147]
Sep 16 00:08:13 presensi phpMyAdmin[18162]: user denied: user (mysql-denied) from 192.3.228.147
Sep 16 00:08:14 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:08:15 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:08:16 presensi phpMyAdmin[18162]: user denied: newuser (mysql-denied) from 192.3.228.147
Sep 16 00:08:16 presensi phpMyAdmin[18162]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:08:17 presensi phpMyAdmin[18162]: user denied: dev (mysql-denied) from 192.3.228.147
Sep 16 00:08:17 presensi phpMyAdmin[18162]: user denied: admin (mysql-denied) from 192.3.228.147
Sep 16 00:08:18 presensi phpMyAdmin[18162]: user denied: admin (mysql-denied) from 192.3.228.147
Sep 16 00:08:19 presensi phpMyAdmin[18166]: user denied: admin (mysql-denied) from 192.3.228.147
Sep 16 00:08:20 presensi phpMyAdmin[18166]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:08:20 presensi phpMyAdmin[18166]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:08:21 presensi phpMyAdmin[18166]: user denied: phpmyadmin (mysql-denied) from 192.3.228.147
Sep 16 00:08:22 presensi phpMyAdmin[18166]: user denied: root (mysql-denied) from 192.3.228.147
Sep 16 00:08:26 presensi phpMyAdmin[18166]: message repeated 7 times: [ user denied: root (mysql-denied) from 192.3.228.147]
```

Hardening is an *approach in computer security* that aims to reduce security risks by reducing potential system vulnerabilities. While no solution can guarantee complete security, hardening is still an important step to protect systems and data.

Buat report dalam format PDF dan di submit di Google ClassRoom !!!

END PRESENTATION

Thank you for your attention
Instructor: S – W – T

THANK YOU