
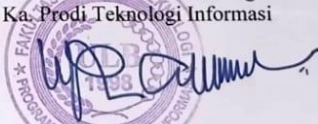


Lampiran

	FAKULTAS SAINS DAN TEKNOLOGI UNIVERSITAS LABUHANBATU PROGRAM STUDI : AGROTEKNOLOGI - TEKNOLOGI INFORMASI - SISTEM INFORMASI - MANAJEMEN INFORMATIKA Jl. SM. Raja No. 126-A KM. 3,5 Aek Tapa - Rantauprapat - Sumatera Utara - Pos 21415 Telp./Fax. (0624) 21901
Nomor	: 02/T1/FST-ULB/X1/2025
Hal	: Permohonan Izin Penelitian
Kepada Yth. Bapak/Ibu Kepala Sekolah SMA Negeri 1 Silangkitang	
di - Tempat	
Sehubungan dengan rencana Penelitian untuk Skripsi/Tugas Akhir Mahasiswa Program Studi S-1 Teknologi Informasi Fakultas Sains dan Teknologi tersebut dibawah ini :	
Nama	: Tasya Nadila
NPM	: 2208100095
Program Studi	: T-1 Teknologi Informasi
Judul Tugas Akhir	: RANCANG BANGUN APLIKASI WEBSITE DI SMA NEGERI I SILANGKITANG
Lokasi Penelitian	: Desa Aek Goti Kecamatan Silangkitang, Kabupaten Labuhanbatu Selatan.
Untuk keperluan tersebut diatas, agar kiranya dapat memberi izin pelaksanaan penelitian di wilayah Bapak/Ibu. Dalam proses pelaksanaanya segala sesuatu yang berkaitan dengan penelitian tersebut akan diselesaikan oleh mahasiswa yang bersangkutan.	
Demikian hal ini kami sampaikan atas perhatian dan bantuannya diucapkan terima kasih.	
Rantauprapat, 04 November 2025 Fakultas Sains dan Teknologi Ka. Prodi Teknologi Informasi	
 Rahmadani Pane, S.Kom, M.Kom NIDN. 0110058601	

Gambar 1 Surat Izin Penelitian



**PEMERINTAH PROVINSI SUMATERA UTARA
DINAS PENDIDIKAN
SMAN 1 SILANGKITANG**

Jalan Besar Silangkitang, Desa Aek Goti Kec. Silangkitang, Kab. Labuhanbatu Selatan
Cabdisdik Wil. VII Kode POS 21461 Telepon- Pos-el smansa1silangkitang@gmail.com

NO : 400.3.8/668/SMAN-1/2025
Lamp : -
Hal : Kegiatan Observasi Penelitian

Dengan hormat,

Berdasarkan Surat dari Universitas Labuhanbatu Nomor : 02/TI/FST-ULB/XI/2025 tanggal 4 November 2025 tentang Permohonan Izin Kegiatan Observasi Penelitian disekolah dan Pengambilan Data di SMA Negeri 1 Silangkitang, maka dengan ini Kepala SMA Negeri 1 Silangkitang, Kecamatan Silangkitang, Kabupaten Labuhanbatu Selatan Provinsi Sumatera Utara dengan ini mengizinkan bahwa :

Nama : Tasya Nadila
NIM : 2208100095
Program Studi : T-1 Teknologi Informasi
Judul Tugas Akhir : Rancang Bangun Aplikasi Website di SMA N 1 Silangkitang

akan melakukan Proses Observasi Penelitian di kelas X ,XI,XII SMA Negeri 1 Silangkitang pada: Tanggal 10 November 2025 s/d 31 Januari 2026.

Demikian keterangan ini dibuat untuk digunakan dengan semestinya.

Silangkitang , 6 November 2025

a.n Plt. Kepala Sekolah
Waka Kurikulum



CHARLYE SIMANJONTAK, S.Pd.M.Pd
NIP. 19781123 200903 1 005

Gambar 2 Balasan Surat Izin Penelitian



Gambar 3 SMA Negeri 1 Silangkitang

LAMPIRAN CODINGAN PEMROGRAMAN

```
<?php

require __DIR__ . '/../vendor/autoload.php';

use Dotenv\Dotenv;
use Project\Mvc\Controller\Admin\AdminDashboardController;
use Project\Mvc\Controller\Admin\AdminElearningController;
use Project\Mvc\Controller\Admin\AdminEPerpusController;
use Project\Mvc\Controller\Admin\AdminProfileController;
use Project\Mvc\Controller\Admin\ClassController;
use Project\Mvc\Controller\Admin\RegistrationController;
use Project\Mvc\Controller\Admin\SchoolContentController;
use Project\Mvc\Controller\Admin\StudentController;
use Project\Mvc\Controller\Admin\TeacherController;
use Project\Mvc\Controller\AdminUserController;
use Project\Mvc\Controller\AuthController;
use Project\Mvc\Controller/IndexController;
use Project\Mvc\Controller\Teacher\TeacherAssignmentController;
use Project\Mvc\Controller\Teacher\TeacherDashboardController;
use Project\Mvc\Controller\Teacher\TeacherGradeController;
use Project\Mvc\Controller\Teacher\TeacherElearningController;
use Project\Mvc\Controller\Teacher\TeacherProfileController;
use Project\Mvc\Controller\Teacher\TeacherQuizController;
use Project\Mvc\Controller\User\UserAssignmentController;
use Project\Mvc\Controller\User\UserDashboardController;
use Project\Mvc\Controller\User\UserElearningController;
use Project\Mvc\Controller\User\UserEPerpusController;
use Project\Mvc\Controller\User\UserGradeController;
use Project\Mvc\Controller\User\UserProfileController;
use Project\Mvc\Controller\User\UserQuizController;
use Project\Mvc\Controller\User\UserRegistrationController;
use Project\Mvc\Middleware\AdminMiddleware;
use Project\Mvc\Middleware\AuthMiddleware;
use Project\Mvc\Middleware\GuestMiddleware;
use Project\Mvc\Middleware\TeacherMiddleware;
use Project\Mvc\Middleware\UserMiddleware;
use Project\Mvc\Routes\Router;

session_start();

$dotenv = Dotenv::createImmutable(dirname(__DIR__));
$dotenv->safeLoad();

Router::add('GET', '/', IndexController::class, 'index',
[GuestMiddleware::class]);
```

```
Router::add('GET', '/register', AuthController::class, 'showRegister',
[GuestMiddleware::class]);
Router::add('POST', '/register', AuthController::class, 'register',
[GuestMiddleware::class]);
Router::add('GET', '/register-siswa', AuthController::class,
'showStudentRegister', [GuestMiddleware::class]);
Router::add('POST', '/register-siswa', AuthController::class,
'registerStudent', [GuestMiddleware::class]);
Router::add('GET', '/login', AuthController::class, 'showLogin',
[GuestMiddleware::class]);
Router::add('POST', '/login', AuthController::class, 'login',
[GuestMiddleware::class]);
Router::add('GET', '/login-siswa', AuthController::class, 'showStudentLogin',
[GuestMiddleware::class]);
Router::add('POST', '/login-siswa', AuthController::class, 'loginStudent',
[GuestMiddleware::class]);
Router::add('POST', '/logout', AuthController::class, 'logout',
[AuthMiddleware::class]);

Router::add('GET', '/user/dashboard', UserDashboardController::class,
'index', [UserMiddleware::class]);
Router::add('GET', '/user/registration', UserRegistrationController::class,
'form', [UserMiddleware::class]);
Router::add('POST', '/user/registration', UserRegistrationController::class,
'submit', [UserMiddleware::class]);
Router::add('GET', '/user/profile/editAvatar', UserProfileController::class,
'showProfile', [UserMiddleware::class]);
Router::add('POST', '/user/profile/editAvatar', UserProfileController::class,
'updateProfile', [UserMiddleware::class]);
Router::add('GET', '/user/profile/editPassword',
UserProfileController::class, 'showPassword', [UserMiddleware::class]);
Router::add('POST', '/user/profile/editPassword',
UserProfileController::class, 'updatePassword', [UserMiddleware::class]);
Router::add('GET', '/user/elearning', UserElearningController::class,
'index', [UserMiddleware::class]);
Router::add('GET', '/user/elearning/([0-9]+)',
UserElearningController::class, 'show', [UserMiddleware::class]);
Router::add('POST', '/user/elearning/([0-9]+)/comments',
UserElearningController::class, 'addComment', [UserMiddleware::class]);
Router::add('GET', '/user/quizzes/([0-9]+)', UserQuizController::class,
'show', [UserMiddleware::class]);
Router::add('POST', '/user/quizzes/([0-9]+)/submit',
UserQuizController::class, 'submit', [UserMiddleware::class]);
Router::add('GET', '/user/assignments/([0-9]+)',
UserAssignmentController::class, 'show', [UserMiddleware::class]);
Router::add('POST', '/user/assignments/([0-9]+)/submit',
UserAssignmentController::class, 'submit', [UserMiddleware::class]);
```

```
Router::add('GET', '/user/grades', UserGradeController::class, 'index',
[UserMiddleware::class]);
Router::add('GET', '/user/eperpus', UserEPerpusController::class, 'index',
[UserMiddleware::class]);
Router::add('GET', '/user/eperpus/([0-9]+)', UserEPerpusController::class,
'show', [UserMiddleware::class]);
Router::add('POST', '/user/eperpus/([0-9]+)/borrow',
UserEPerpusController::class, 'borrow', [UserMiddleware::class]);
Router::add('POST', '/user/eperpus/loans/([0-9]+)/return',
UserEPerpusController::class, 'returnLoan', [UserMiddleware::class]);

Router::add('GET', '/teacher/dashboard', TeacherDashboardController::class,
'index', [TeacherMiddleware::class]);
Router::add('GET', '/teacher/profile/editAvatar',
TeacherProfileController::class, 'showProfile', [TeacherMiddleware::class]);
Router::add('POST', '/teacher/profile/editAvatar',
TeacherProfileController::class, 'updateProfile', [TeacherMiddleware::class]);
Router::add('GET', '/teacher/profile/editPassword',
TeacherProfileController::class, 'showPassword', [TeacherMiddleware::class]);
Router::add('POST', '/teacher/profile/editPassword',
TeacherProfileController::class, 'updatePassword',
[TeacherMiddleware::class]);
Router::add('GET', '/teacher/elearning', TeacherElearningController::class,
'index', [TeacherMiddleware::class]);
Router::add('GET', '/teacher/elearning/create',
TeacherElearningController::class, 'createForm', [TeacherMiddleware::class]);
Router::add('POST', '/teacher/elearning', TeacherElearningController::class,
'store', [TeacherMiddleware::class]);
Router::add('GET', '/teacher/elearning/([0-9]+)',
TeacherElearningController::class, 'show', [TeacherMiddleware::class]);
Router::add('POST', '/teacher/elearning/([0-9]+)/comments',
TeacherElearningController::class, 'addComment', [TeacherMiddleware::class]);
Router::add('GET', '/teacher/elearning/([0-9]+)/edit',
TeacherElearningController::class, 'editForm', [TeacherMiddleware::class]);
Router::add('POST', '/teacher/elearning/([0-9]+)/update',
TeacherElearningController::class, 'update', [TeacherMiddleware::class]);
Router::add('POST', '/teacher/elearning/([0-9]+)/delete',
TeacherElearningController::class, 'delete', [TeacherMiddleware::class]);
Router::add('GET', '/teacher/quizzes', TeacherQuizController::class, 'index',
[TeacherMiddleware::class]);
Router::add('GET', '/teacher/quizzes/create', TeacherQuizController::class,
'createForm', [TeacherMiddleware::class]);
Router::add('POST', '/teacher/quizzes', TeacherQuizController::class, 'store',
[TeacherMiddleware::class]);
Router::add('GET', '/teacher/quizzes/([0-9]+)/edit',
TeacherQuizController::class, 'editForm', [TeacherMiddleware::class]);
Router::add('POST', '/teacher/quizzes/([0-9]+)/update',
TeacherQuizController::class, 'update', [TeacherMiddleware::class]);
```

```
Router::add('POST', '/teacher/quizzes/([0-9]+)/delete',
TeacherQuizController::class, 'delete', [TeacherMiddleware::class]);
Router::add('GET', '/teacher/assignments',
TeacherAssignmentController::class, 'index', [TeacherMiddleware::class]);
Router::add('GET', '/teacher/assignments/create',
TeacherAssignmentController::class, 'createForm', [TeacherMiddleware::class]);
Router::add('POST', '/teacher/assignments',
TeacherAssignmentController::class, 'store', [TeacherMiddleware::class]);
Router::add('GET', '/teacher/assignments/([0-9]+)/edit',
TeacherAssignmentController::class, 'editForm', [TeacherMiddleware::class]);
Router::add('POST', '/teacher/assignments/([0-9]+)/update',
TeacherAssignmentController::class, 'update', [TeacherMiddleware::class]);
Router::add('POST', '/teacher/assignments/([0-9]+)/delete',
TeacherAssignmentController::class, 'delete', [TeacherMiddleware::class]);
Router::add('GET', '/teacher/assignments/([0-9]+)/submissions',
TeacherAssignmentController::class, 'submissions',
[TeacherMiddleware::class]);
Router::add('GET', '/teacher/grades', TeacherGradeController::class, 'index',
[TeacherMiddleware::class]);
Router::add('POST', '/teacher/assignment-submissions/([0-9]+)/grade',
TeacherAssignmentController::class, 'gradeSubmission',
[TeacherMiddleware::class]);

Router::add('GET', '/admin/dashboard', AdminDashboardController::class,
'index', [AdminMiddleware::class]);
Router::add('GET', '/admin/profile/editAvatar',
AdminProfileController::class, 'showProfile', [AdminMiddleware::class]);
Router::add('POST', '/admin/profile/editAvatar',
AdminProfileController::class, 'updateProfile', [AdminMiddleware::class]);
Router::add('GET', '/admin/profile/editPassword',
AdminProfileController::class, 'showPassword', [AdminMiddleware::class]);
Router::add('POST', '/admin/profile/editPassword',
AdminProfileController::class, 'updatePassword', [AdminMiddleware::class]);
Router::add('GET', '/admin/student', StudentController::class, 'index',
[AdminMiddleware::class]);
Router::add('POST', '/admin/student', StudentController::class, 'store',
[AdminMiddleware::class]);
Router::add('GET', '/admin/student/create', StudentController::class,
'createForm', [AdminMiddleware::class]);
Router::add('GET', '/admin/student/export/pdf', StudentController::class,
'exportPdf', [AdminMiddleware::class]);
Router::add('GET', '/admin/student-old', StudentController::class,
'oldIndex', [AdminMiddleware::class]);
Router::add('GET', '/admin/student-old/export/pdf', StudentController::class,
'exportOldPdf', [AdminMiddleware::class]);
Router::add('GET', '/admin/student/([0-9]+)/edit', StudentController::class,
'editForm', [AdminMiddleware::class]);
```

```
Router::add('POST', '/admin/student/([0-9]+)/update',
StudentController::class, 'update', [AdminMiddleware::class]);
Router::add('POST', '/admin/student/([0-9]+)/delete',
StudentController::class, 'delete', [AdminMiddleware::class]);
Router::add('GET', '/admin/class', ClassController::class, 'index',
[AdminMiddleware::class]);
Router::add('GET', '/admin/class/create', ClassController::class,
'createForm', [AdminMiddleware::class]);
Router::add('POST', '/admin/class', ClassController::class, 'store',
[AdminMiddleware::class]);
Router::add('GET', '/admin/class/([0-9]+)/edit', ClassController::class,
'editForm', [AdminMiddleware::class]);
Router::add('POST', '/admin/class/([0-9]+)/update', ClassController::class,
'update', [AdminMiddleware::class]);
Router::add('POST', '/admin/class/([0-9]+)/delete', ClassController::class,
'delete', [AdminMiddleware::class]);
Router::add('GET', '/admin/teacher', TeacherController::class, 'index',
[AdminMiddleware::class]);
Router::add('GET', '/admin/teacher/export/pdf', TeacherController::class,
'exportPdf', [AdminMiddleware::class]);
Router::add('GET', '/admin/teacher/create', TeacherController::class,
'createForm', [AdminMiddleware::class]);
Router::add('POST', '/admin/teacher', TeacherController::class, 'store',
[AdminMiddleware::class]);
Router::add('GET', '/admin/teacher/([0-9]+)/edit', TeacherController::class,
'editForm', [AdminMiddleware::class]);
Router::add('POST', '/admin/teacher/([0-9]+)/update',
TeacherController::class, 'update', [AdminMiddleware::class]);
Router::add('POST', '/admin/teacher/([0-9]+)/delete',
TeacherController::class, 'delete', [AdminMiddleware::class]);
Router::add('GET', '/admin/registrations', RegistrationController::class,
'index', [AdminMiddleware::class]);
Router::add('GET', '/admin/registrations/([0-9]+)',
RegistrationController::class, 'show', [AdminMiddleware::class]);
Router::add('POST', '/admin/registrations/([0-9]+)/verify',
RegistrationController::class, 'verify', [AdminMiddleware::class]);
Router::add('GET', '/admin/users', UserController::class, 'index',
[AdminMiddleware::class]);
Router::add('GET', '/admin/users/create', UserController::class,
'createForm', [AdminMiddleware::class]);
Router::add('POST', '/admin/users', UserController::class, 'store',
[AdminMiddleware::class]);
Router::add('GET', '/admin/users/([0-9]+)/edit', UserController::class,
'editForm', [AdminMiddleware::class]);
Router::add('POST', '/admin/users/([0-9]+)/update', UserController::class,
'update', [AdminMiddleware::class]);
Router::add('POST', '/admin/users/([0-9]+)/delete', UserController::class,
'delete', [AdminMiddleware::class]);
```

```
Router::add('GET', '/admin/elearning', AdminElearningController::class,
'index', [AdminMiddleware::class]);
Router::add('GET', '/admin/eperpus', AdminEPerpusController::class, 'index',
[AdminMiddleware::class]);
Router::add('GET', '/admin/school-
content/(gallery|announcement|information)', SchoolContentController::class,
'index', [AdminMiddleware::class]);
Router::add('GET', '/admin/school-
content/(gallery|announcement|information)/create',
SchoolContentController::class, 'createForm', [AdminMiddleware::class]);
Router::add('POST', '/admin/school-
content/(gallery|announcement|information)', SchoolContentController::class,
'store', [AdminMiddleware::class]);
Router::add('GET', '/admin/school-
content/(gallery|announcement|information)/([0-9]+)/edit',
SchoolContentController::class, 'editForm', [AdminMiddleware::class]);
Router::add('POST', '/admin/school-
content/(gallery|announcement|information)/([0-9]+)/update',
SchoolContentController::class, 'update', [AdminMiddleware::class]);
Router::add('POST', '/admin/school-
content/(gallery|announcement|information)/([0-9]+)/delete',
SchoolContentController::class, 'delete', [AdminMiddleware::class]);
Router::add('GET', '/admin/eperpus/create', AdminEPerpusController::class,
'createForm', [AdminMiddleware::class]);
Router::add('POST', '/admin/eperpus', AdminEPerpusController::class, 'store',
[AdminMiddleware::class]);
Router::add('GET', '/admin/eperpus/([0-9]+)/edit',
AdminEPerpusController::class, 'editForm', [AdminMiddleware::class]);
Router::add('POST', '/admin/eperpus/([0-9]+)/update',
AdminEPerpusController::class, 'update', [AdminMiddleware::class]);
Router::add('POST', '/admin/eperpus/([0-9]+)/delete',
AdminEPerpusController::class, 'delete', [AdminMiddleware::class]);
Router::add('POST', '/admin/eperpus/loans/([0-9]+)/delete',
AdminEPerpusController::class, 'deleteReturnedLoan',
[AdminMiddleware::class]);

Router::run();
```