



Lampiran 1 *Webservice* pada Beberapa Sistem Informasi

Sistem Informasi	Method	Link Webservice
SIANITA	GET	https://sianita.unud.ac.id/curl/datapegawai/cari/{id_user}
SIANITA	GET	https://sianita.unud.ac.id/curl/atasan/get_atasan/{id_user}
SIANITA	GET	https://sianita.unud.ac.id/curl/bawahan/get_bawahan/{id_user}
SIANITA	POST	https://sianita.unud.ac.id/curl/datapegawai/list_pegawai?id_unit={id_unit}&kode_sunit={kode_sunit}&kode_ssunit={kode_ssunit}&status_pegawai={status}
SIANITA	GET	https://sianita.unud.ac.id/curl/jabatan/list_jabatan/{tanggal}?id_unit={id_unit}&kode_sunit={kode_sunit}&kode_ssunit={kode_ssunit}&id_jabatan={id_jabatan}
API-BIOS	GET	https://api-bios.unud.ac.id/keuangan/pengeluaran?TanggalUpdate={tanggal}
API-BIOS	GET	https://api-bios.unud.ac.id/keuangan/penerimaan?TanggalUpdate={tanggal}
KUISIONER	GET	https://kuisisioner-ng.unud.ac.id/api/statusPerTahunAjar/{nip}/{id_periode}?detail=1
SILUNA	GET	https://siluna.unud.ac.id/api/pok_realisasi?id_unit={id_unit}&tahun={tahun}
UKT-KU	POST	https://ukt-ku.unud.ac.id/api/pengembalian/get/data?tahun_ajaran={tahun_ajar}&token={token}
SIM SK	GET	https://sk.unud.ac.id/sk-detail?no={no_sk}
SIRAIISA	GET	https://siraisa.unud.ac.id/api/v1/public/letters/inbox?personal_id={id_user}&tahun={tahun}&start=0&length=1000
SIMDOS	GET	https://api-simdos.unud.ac.id/dosen/{id_dosen}/detail
SIMDOS	GET	https://api-simdos.unud.ac.id/riwayat/pendidikan/dosen/{id_dosen}/terakhir
SIMDOS	GET	https://api-simdos.unud.ac.id/riwayat/fungsional/dosen/{id_dosen}/terakhir
SIMDOS	GET	https://api-simdos.unud.ac.id/riwayat/pangkat/dosen/{id_dosen}/terakhir
SIMDOS	GET	https://api-simdos.unud.ac.id/riwayat/keaktifan/dosen/{id_dosen}/terakhir
SIMDOS	GET	https://api-simdos.unud.ac.id/riwayat/tugas-tambahan/dosen/{id_dosen}/terakhir
SIMAK	GET	https://simak-ng.unud.ac.id/api/v1/mbkm/mahasiswa-mbkm-internal/tahun-ajar/{tahun_ajar}{semester}

Lampiran 2 Uji Coba Kontrol *Input* dan *Output Segment* Pegawai

Percobaan 1 (Value dengan nilai null)

Endpoint : /pegawai/data

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
id_user	null

Output pada microservices:

HTTP code response: 400 – Bad Request

Response:

```
{
  "status": "Bad Request",
  "http_code": 400,
  "error": "ID User tidak boleh kosong"
}
```

Output pada WS Sumber

HTTP code response: 500 – Internal Server Error

Response:

ERROR 500 - Internal Server Error!

The following error occurred:

The requested URL caused an internal server error.

If you get this message repeatedly please contact the webmaster.

Powered by [ISPConfig](#)

Percobaan 2 (Value dengan nilai huruf)

Endpoint : /pegawai/data

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
id_user	abcd

Output pada microservices:

HTTP code response: 400 – Bad Request

Response:

```
"status": "Bad Request",  
"http_code": 400,  
"error": "ID User harus integer"
```

Output pada WS Sumber

HTTP code response: 200 – OK

Response:

```
[]
```

Percobaan 3 (Value dengan nilai minus)

Endpoint : /pegawai/data

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
id_user	-100

Output pada microservices:

HTTP code response: 400 – Bad Request

Response:

```

{
  "status": "Bad Request",
  "http_code": 400,
  "error": "Harap input ID User dengan benar"
}

```

Output pada WS Sumber

HTTP code response: 200 – OK

Response:

```

[]

```

Percobaan 4 (Value dengan data return yang null)

Endpoint : /pegawai/data

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
id_user	6000

Output pada microservices:

HTTP code response: 404 – Not Found

Response:

```

{
  "status": "Not Found",
  "http_code": 404,
  "error": "Data tidak ada"
}

```

Output pada WS Sumber

HTTP code response: 200 – OK

Response:

```

[]

```

Percobaan 5 (Value yang valid dengan ada return data)

Endpoint : /pegawai/data

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
id_user	4003

Output pada microservices:

HTTP code response: 200 – OK

Response:

```
{ "status": "OK", "http_code": 200, "process_time": 0.0561, "error": null, "data": { "id_user": "4003", "nip": "1990080920160512001", "nama_tercetak": "I Gede Nyoman Agung Jayarana, S.TL", "jenis_kelamin": "Laki-laki", "status_pegawai": "Kontrak", "agama": "Hindu", "id_agama": "1", "status_keaktifan": "Ijin Belajar", "jenis_pegawai": "3", "shift": "2", "jumlah_hari_kerja": "5", "nama_pangkat_detail": "Belum memiliki pangkat", "id_keaktifan": "3", "jabatan": "Programmer Utama", "jabatan_2": "Programmer Utama", "unit_penempatan": "Unit Sumber Daya Informasi", "subunit_penempatan": "Sekretariat USDI", "subsubunit_penempatan": "Sub Bagian Tata Usaha", "pendidikan_terakhir": "S1", "id_unit": "22", "kode_sunit": "148", "kode_ssunit": "226", "id_sunit": "1", "id_jabatan": "116", "id_jab_detail": "932", "level": "4", "nama_pangkat": "Belum memiliki pangkat", "golongan": "", "nama_pangkat_panjang": "Belum memiliki pangkat", "no_npwp": "45.145.358.3-903.000", "rek_bpd": "0340212017111", "rek_bai": "0438542731", "no_ktp": "5171020908900004", "tmt_pengangkatan": "2016-05-01", "jabatan_detail": "Programmer Utama" } }
```

Output pada WS Sumber

HTTP code response: 200 – OK

Response:

```
{ "id_user": "4003", "nip": "1990080920160512001", "nama_tercetak": "I Gede Nyoman Agung Jayarana, S.TL", "jenis_kelamin": "Laki-laki", "status_pegawai": "Kontrak", "agama": "Hindu", "id_agama": "1", "status_keaktifan": "Ijin Belajar", "jenis_pegawai": "3", "shift": "2", "jumlah_hari_kerja": "5", "nama_pangkat_detail": "Belum memiliki pangkat", "id_keaktifan": "3", "jabatan": "Programmer Utama", "jabatan_2": "Programmer Utama", "unit_penempatan": "Unit Sumber Daya Informasi", "subunit_penempatan": "Sekretariat USDI", "subsubunit_penempatan": "Sub Bagian Tata Usaha", "pendidikan_terakhir": "S1", "id_unit": "22", "kode_sunit": "148", "kode_ssunit": "226", "id_sunit": "1", "id_jabatan": "116", "id_jab_detail": "932", "level": "4", "nama_pangkat": "Belum memiliki pangkat", "golongan": "", "nama_pangkat_panjang": "Belum memiliki pangkat", "no_npwp": "45.145.358.3-903.000", "rek_bpd": "0340212017111", "rek_bai": "0438542731", "no_ktp": "5171020908900004", "tmt_pengangkatan": "2016-05-01", "jabatan_detail": "Programmer Utama" }
```

Lampiran 3 Uji Coba Kontrol *Input* dan *Output Segment* Keuangan

Percobaan 1 (Value dengan nilai null)

Endpoint : /keuangan/pengeluaran

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
tanggal	null

Output pada microservices:

HTTP code response: 400 – Bad Request

Response:

```
{
  "status": "Bad Request",
  "http_code": 400,
  "error": "Tanggal tidak boleh kosong"
}
```

Output pada WS Sumber

HTTP code response: 200 – OK

Response:

```
{
  "Pengeluaran": []
}
```

Percobaan 2 (Value dengan format tanggal yang salah)

Endpoint : /keuangan/pengeluaran

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
tanggal	31-12-2021

Output pada microservices:

HTTP code response: 400 – Bad Request

Response:

```
{
  "status": "Bad Request",
  "http_code": 400,
  "error": "Format tanggal harus benar"
}
```

Output pada WS Sumber

HTTP code response: 200 – OK

Response:

```
[[{"Pengeluaran": [{"Tanggal": "2021-12-31 00:00:00", "KodeAkun": "525111", "Saldo": "245680921289", "TanggalUpdate": "2022-08-26 00:00:00"}, {"Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251190", "Saldo": "545643699153", "TanggalUpdate": "2022-08-31 00:00:00"}, {"Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251290", "Saldo": "41539356453", "TanggalUpdate": "2022-08-30 00:00:00"}, {"Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251390", "Saldo": "7291210493", "TanggalUpdate": "2022-08-30 00:00:00"}, {"Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251490", "Saldo": "13085447456", "TanggalUpdate": "2022-08-30 00:00:00"}, {"Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251590", "Saldo": "12534469431", "TanggalUpdate": "2022-08-30 00:00:00"}, {"Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251790", "Saldo": "149276099308", "TanggalUpdate": "2022-08-31 00:00:00"}, {"Tanggal": "2021-12-31 00:00:00", "KodeAkun": "999999", "Saldo": "19722694117868", "TanggalUpdate": "2022-08-30 00:00:00"}]]
```

Percobaan 3 (Value dengan data return yang null)

Endpoint : /keuangan/pengeluaran

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
tanggal	2015-12-31

Output pada microservices:

HTTP code response: 404 – Not Found

Response:

```
{
  "status": "Not Found",
  "http_code": 404,
  "error": "Data tidak ada"
}
```

Output pada WS Sumber

HTTP code response: 200 – OK

Response:

```
{
  "Pengeluaran": []
}
```

Percobaan 4 (Value dengan nilai huruf)

Endpoint : /keuangan/pengeluaran

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
tanggal	abcde

Output pada microservices:

HTTP code response: 400 – Bad Request

Response:

```
{
  "status": "Bad Request",
  "http_code": 400,
  "error": "Format tanggal harus benar"
}
```

Output pada WS Sumber

HTTP code response: 200 – OK

Response:

```
{
  "Pengeluaran": [
    {
      "Tanggal": "1970-01-01 08:00:00",
      "KodeAkun": "525111",
      "Saldo": "773836620428",
      "TanggalUpdate": "2022-08-26 00:00:00",
      "Tanggal": "1970-01-01 08:00:00",
      "KodeAkun": "5251198",
      "Saldo": "1647545456156",
      "TanggalUpdate": "2022-08-31 00:00:00",
      "Tanggal": "1970-01-01 08:00:00",
      "KodeAkun": "5251298",
      "Saldo": "152007657629",
      "TanggalUpdate": "2022-08-30 00:00:00",
      "Tanggal": "1970-01-01 08:00:00",
      "KodeAkun": "5251390",
      "Saldo": "16191353307",
      "TanggalUpdate": "2022-08-30 00:00:00",
      "Tanggal": "1970-01-01 08:00:00",
      "KodeAkun": "5251490",
      "Saldo": "40741506226",
      "TanggalUpdate": "2022-08-30 00:00:00",
      "Tanggal": "1970-01-01 08:00:00",
      "KodeAkun": "5251590",
      "Saldo": "26040352213",
      "TanggalUpdate": "2022-08-30 00:00:00",
      "Tanggal": "1970-01-01 08:00:00",
      "KodeAkun": "5251790",
      "Saldo": "549665870779",
      "TanggalUpdate": "2022-08-31 00:00:00",
      "Tanggal": "1970-01-01 08:00:00",
      "KodeAkun": "99999",
      "Saldo": "52308704854324",
      "TanggalUpdate": "2022-08-30 00:00:00"
    }
  ]
}
```

Percobaan 5 (Value yang valid dengan ada return data)

Endpoint : /keuangan/pengeluaran

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
tanggal	2021-12-31

Output pada microservices:

HTTP code response: 200 – OK

Response:

```
{ "status": "OK", "http_code": 200, "process_time": 0.0844, "error": null, "data": { "Pengeluaran": [ { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "525111", "Saldo": "149221647882", "TanggalUpdate": "2021-12-31 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251190", "Saldo": "333636631804", "TanggalUpdate": "2021-12-31 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251290", "Saldo": "29558656054", "TanggalUpdate": "2021-12-31 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251390", "Saldo": "5825142587", "TanggalUpdate": "2021-12-27 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251490", "Saldo": "10128637562", "TanggalUpdate": "2021-12-23 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251590", "Saldo": "7390203046", "TanggalUpdate": "2021-12-27 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251790", "Saldo": "84058206995", "TanggalUpdate": "2021-12-31 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "99999", "Saldo": "9850434590868", "TanggalUpdate": "2021-12-31 00:00:00" } ] } }
```

Output pada WS Sumber

HTTP code response: 200 – OK

Response:

```
{ "Pengeluaran": [ { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "525111", "Saldo": "149221647882", "TanggalUpdate": "2021-12-31 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251190", "Saldo": "333636631804", "TanggalUpdate": "2021-12-31 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251290", "Saldo": "29558656054", "TanggalUpdate": "2021-12-31 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251390", "Saldo": "5825142587", "TanggalUpdate": "2021-12-27 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251490", "Saldo": "10128637562", "TanggalUpdate": "2021-12-23 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251590", "Saldo": "7390203046", "TanggalUpdate": "2021-12-27 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "5251790", "Saldo": "84058206995", "TanggalUpdate": "2021-12-31 00:00:00" }, { "Tanggal": "2021-12-31 00:00:00", "KodeAkun": "99999", "Saldo": "9850434590868", "TanggalUpdate": "2021-12-31 00:00:00" } ] }
```



Lampiran 4 Uji Coba Kontrol *Input* dan *Output Segment* Dosen

Percobaan 1 (Value dengan nilai null)

Endpoint : /dosen/data

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
id_dosen	null

Output pada microservices:

HTTP code response: 400 – Bad Request

Response:

```
{
  "status": "Bad Request",
  "http_code": 400,
  "error": "ID Dosen tidak boleh kosong"
}
```

Output pada WS Sumber

HTTP code response: 404 – Not Found

Response:

Oops! An Error Occurred

The server returned a "404 Not Found".

Something is broken. Please let us know what you were doing when this error occurred. We will fix it as soon as possible. Sorry for any inconvenience caused.

Percobaan 2 (Value dengan nilai huruf)

Endpoint : /dosen/data

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
id_dosen	abcde

Output pada microservices:

HTTP code response: 400 – Bad Request

Response:

```
{
  "status": "Bad Request",
  "http_code": 400,
  "error": "ID Dosen harus integer"
}
```

Output pada WS Sumber

HTTP code response: 500 – Internal Server Error

Response:

Oops! An Error Occurred

The server returned a "500 Internal Server Error".

Something is broken. Please let us know what you were doing when this error occurred. We will fix it as soon as possible. Sorry for any inconvenience caused.

Percobaan 3 (Value dengan nilai minus)

Endpoint : /dosen/data

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
id_dosen	-100

Output pada microservices:

HTTP code response: 400 – Bad Request

Response:

```
"status": "Bad Request",
"http_code": 400,
"error": "Harap input ID Dosen dengan benar"
```

Output pada WS Sumber

HTTP code response: 500 – Internal Server Error

Response:

Oops! An Error Occurred

The server returned a "500 Internal Server Error".

Something is broken. Please let us know what you were doing when this error occurred. We will fix it as soon as possible. Sorry for any inconvenience caused.

Percobaan 4 (Value dengan data return yang null)

Endpoint : /dosen/data

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
id_dosen	10000

Output pada microservices:

HTTP code response: 400 – Bad Request

Response:

```
"status": "Bad Request",
"http_code": "400",
"error": "The requested URL returned error"
```

Output pada WS Sumber

HTTP code response: 500 – Internal Server Error

Response:

Oops! An Error Occurred

The server returned a "500 Internal Server Error".

Something is broken. Please let us know what you were doing when this error occurred. We will fix it as soon as possible. Sorry for any inconvenience caused.

Percobaan 5 (Value yang valid dengan ada return data)

Endpoint : /dosen/data

Jumlah Param : 1

Method : GET

Input:

Parameter	Value
id_dosen	3113

Output pada microservices:

HTTP code response: 200 – OK

Response:

```
{ "status": "OK", "http_code": 200, "process_time": 0.0805, "error": null, "data": { "id_dosen": 3113, "nidn": "0029087205", "nip": "197208292001121001", "nama": "Nyoman Putra Sastra", "nama_tercetak": "Dr. Nyoman Putra Sastra, ST, MT", "gelar_depan": "Dr.", "gelar_belakang": "ST, MT", "id_unit": 4, "nama_unit": "Fakultas Teknik", "id_sunit": 4, "nama_sunit": "Sarjana Teknik Elektro", "id_ssunit": 0, "jenis_kelamin": "Pria", "jenis_pegawai": 2, "jabatan_pegawai": 0, "status_pegawai": 1, "nama_status_pegawai": "Tetap", "no_rekening": "0340222034742", "no_npwp": "08.389.091.3-901.000", "no_karpeg": "0752891", "no_karis_karsu": "062734", "no_ktp": "5171032908720018", "telp_rumah": "242233", "no_hp": "08123836561", "email": "a@unud.ac.id", "serdos_status": "1", "serdos_tahun": "2015", "serdos_no": "15100101303309", "alamat_rumah": "Jl. PB Sudirman FS 3 Denpasar", "tempat_lahir": "Denpasar", "tgl_lahir": "1972-08-29", "tmt_pengangkatan": "2001-12-01", "file_ktp": "https://simdos.unud.ac.id/uploads/file_ktp_dir/55a8f44e596693d886bc24bf436d85e4.jpg", "file_karpeg": "https://simdos.unud.ac.id/uploads/file_karpeg_dir/0bc7f9de52ca51bdc295bf130f6b61a5.png", "file_karis_karsu": "https://simdos.unud.ac.id/uploads/file_karis_karsu_dir/8e7897a2a77ab48bd9cd4a9310ebb92a.jpg", "file_npwp": "https://simdos.unud.ac.id/uploads/file_npwp_dir/5b2b7f1df56585a4f068f29a27f56933.png", "file_serdos": "https://simdos.unud.ac.id/uploads/file_serdos_dir/2506df1172d95a4594afaafcd3ca9e0.jpg", "file_foto": "https://simdos.unud.ac.id/uploads/file_foto_dir/7df6bb0ce78405b8b2deac06d6d782bc.jpg", "flag_valid": "1", "account_google_scholar": "https://scholar.google.co.id/citations?user=K5z6bAIAAAAJ&hl=en", "status_account_google_scholar": "1", "akun_scopus": "https://www.scopus.com/authid/detail.uri?authorId=24767212900", "akun_scopus_status": null, "akun_sinta": "https://sinta.kemdikbud.go.id/authors/detail?id=259091&view=overview", "akun_sinta_status": 1,
```

Output pada WS Sumber

HTTP code response: 200 – OK

Response:

```
{ "id_dosen": 3113, "nidn": "0029087205", "nip": "197208292001121001", "nama": "Nyoman Putra Sastra", "nama_tercetak": "Dr. Nyoman Putra Sastra, ST, MT", "gelar_depan": "Dr.", "gelar_belakang": "ST, MT", "id_unit": 4, "nama_unit": "Fakultas Teknik", "id_sunit": 4, "nama_sunit": "Sarjana Teknik Elektro", "id_ssunit": 0, "jenis_kelamin": "Pria", "jenis_pegawai": 2, "jabatan_pegawai": 0, "status_pegawai": 1, "nama_status_pegawai": "Tetap", "no_rekening": "0340222034742", "no_npwp": "08.389.091.3-901.000", "no_karpeg": "0752891", "no_karis_karsu": "062734", "no_ktp": "5171032908720018", "telp_rumah": "242233", "no_hp": "08123836561", "email": "a@unud.ac.id", "serdos_status": "1", "serdos_tahun": "2015", "serdos_no": "15100101303309", "alamat_rumah": "Jl. PB Sudirman FS 3 Denpasar", "tempat_lahir": "Denpasar", "tgl_lahir": "1972-08-29", "tmt_pengangkatan": "2001-12-01", "file_ktp": "https://simdos.unud.ac.id/uploads/file_ktp_dir/55a8f44e596693d886bc24bf436d85e4.jpg", "file_karpeg": "https://simdos.unud.ac.id/uploads/file_karpeg_dir/user=K5z6bAIAAAAJ&hl=en", "status_account_google_scholar": "1", "akun_scopus": "https://www.scopus.com/authid/detail.uri?authorId=24767212900", "akun_scopus_status": null, "akun_sinta": "https://sinta.kemdikbud.go.id/authors/detail?id=259091&view=overview", "akun_sinta_status": 1, "akun_publons": "https://publons.com/researcher/1285450/nyoman-putra-sastra/", "akun_publons_status": null, "id_jenjang_pendidikan": 1, "nama_jenjang_pendidikan": "S3", "jurusan_pendidikan": "Teknik Elektro", "tgl_selesai_pendidikan": "2015-08-13", "nama_bidang_ilmu": "TEKNIK", "nama_instansi_pendidikan": "INSTITUT TEKNOLOGI SEPULUH NOVENBER", "file_riwat_pendidikan": "https://simdos.unud.ac.id/uploads/file_riwat_pendidikan_dir/d0246891c101663961043e3bc326312a.pdf", "status_keaktifan": "A 10-05", "file_riwat_keaktifan": "https://simdos.unud.ac.id/uploads/file_riwat_keaktifan_dir/1318e9c7c30a0849f62f2560bdae76bb.pdf", "nama_jabatan": "Lektor Kepala", "tmt_jabatan": "2022-07-01", "file_riwat_fungsional": "https://simdos.unud.ac.id/uploads/file_riwat_fungsional_dir/f14223712f4805b592965dc2a1f8063c.pdf", "nama_bangkat": "III/D", "tmt oang
```

Lampiran 5 Hasil Percobaan *Black Box Testing*

Komponen *Register*

The image displays six screenshots of the MicroServices registration form, arranged in two rows of three. Each screenshot shows the form with different input fields highlighted by a red border and a red error icon, indicating a validation failure.

- Top Row, Left:** The 'First Name' field is highlighted with an error icon.
- Top Row, Middle:** The 'Last Name' field is highlighted with an error icon.
- Top Row, Right:** The 'Email' field is highlighted with an error icon.
- Bottom Row, Left:** The 'Username' field is highlighted with an error icon.
- Bottom Row, Middle:** The 'Password' field is highlighted with an error icon.
- Bottom Row, Right:** The 'Retype password' field is highlighted with an error icon.

Below the screenshots are two notification boxes:

- A red box with a shield icon and the text: "Password harus sama".
- A green box with a checkmark icon and the text: "Register berhasil, halaman akan refresh dalam 3 detik".

Komponen *Login*

A red notification box with a shield icon and the text: "Username atau password salah".

Microservices (Developers) ⌵

Mankde Jayarana Home / Dashboard

Search

- Dashboard
- API
- Pengaturan

20
JUMLAH API

857
TOTAL HIT

9
JUMLAH USER

Total Hit Harian

Chart Sukses dan Error

NIM. 1929101065 | Gede Nyoman Agung Jayarana Universitas Pendidikan Ganesha | S2 Ilmu Komputer | Version 1.0.0

Microservices (Administrator) ⌵

Admin Admin Home / Dashboard

Search

- Dashboard
- User
- Pengaturan

20
JUMLAH API

857
TOTAL HIT

9
JUMLAH USER

Total Hit Harian


Chart Sukses dan Error


NIM. 1929101065 | Gede Nyoman Agung Jayarana Universitas Pendidikan Ganesha | S2 Ilmu Komputer | Version 1.0.0



Komponen Request Token


Get Token ×


Authorization Basic  **Password**



```
{
  "error": "invalid_client",
  "error_description": "Client credentials were not found in the headers or body"
}
```


Get Token ×


Authorization Basic  **Password**



```
{
  "error": "invalid_request",
  "error_description": "Missing parameters: \"username\" and \"password\" required"
}
```

Get Token ×

Authorization Basic  **Password**



```
{
  "access_token": "a397532e0faabaa70b82a25271a401d8a8c2441f",
  "expires_in": 3600,
  "token_type": "Bearer",
  "scope": "app",
  "refresh_token": "3ce21a94bef7fe2c937c01bd4439647ae3b93abb"
}
```

Komponen Hit API Dosen

The image displays five screenshots of a REST client interface, arranged in a grid. Each screenshot shows a 'Try API' window with the following details:

- Method:** GET
- URI Pattern:** /dosen/data/{id_dosen}
- Authorization Bearer:** 2177c4fd45ccb54bd05cb1876c8ac4110beebe5
- Parameter Table:**

Parameter	Data Type	Value
id_dosen	Integer	3113
- Response:**
 - Screenshot 1: {"status": "Bad Request", "http_code": 400, "error": "Token Unauthorized"}
 - Screenshot 2: {"status": "Bad Request", "http_code": 400, "error": "ID Dosen tidak boleh kosong"}
 - Screenshot 3: {"status": "Bad Request", "http_code": 400, "error": "ID Dosen harus Integer"}
 - Screenshot 4: {"status": "Unauthorized", "http_code": 401, "error": "Token Unauthorized"}
 - Screenshot 5: {"status": "OK", "http_code": 200, "process_time": 0.4462, "error": null, "data": {"id_dosen": 3113, "id": "...", "nama": "...", "nama_singkat": "...", "gelar_depan": "Dr.", "gelar_belakang": "ST., MT.", "id_unit": 4}}

Komponen Hit API Pengeluaran

Try API

Method: **GET** | URI Pattern: /keuangan/pengeluaran/{tanggal}

Authorization Bearer: 2177c4fd45ccb54bd05cb1876c8ac4110beebe5

Parameter	Data Type	Value
<input checked="" type="checkbox"/> tanggal	String	

Response

```
{
  "status": "Bad Request",
  "http_code": 400,
  "error": "tanggal tidak boleh kosong"
}
```

Try API

Method: **GET** | URI Pattern: /keuangan/pengeluaran/{tanggal}

Authorization Bearer: 2177c4fd45ccb54bd05cb1876c8ac4110beebe5

Parameter	Data Type	Value
<input checked="" type="checkbox"/> tanggal	String	a

Response

```
{
  "status": "Bad Request",
  "http_code": 400,
  "error": "Format tanggal harus benar"
}
```

Try API

Method: **GET** | URI Pattern: /keuangan/pengeluaran/{tanggal}

Authorization Bearer: 2177c4fd45ccb54bd05cb1876c8ac4110beebe5

Parameter	Data Type	Value
<input checked="" type="checkbox"/> tanggal	String	31-12-2022

Response

```
{
  "status": "Bad Request",
  "http_code": 400,
  "error": "Format tanggal harus benar"
}
```

Try API

Method: **GET** | URI Pattern: /keuangan/pengeluaran/{tanggal}

Authorization Bearer: 2177c4fd45ccb54bd05cb1876c8ac4110beebe5

Parameter	Data Type	Value
<input checked="" type="checkbox"/> tanggal	String	2022-12-31

Response

```
{
  "status": "OK",
  "http_code": 200,
  "process_time": 0.1168,
  "error": null,
  "data": {
    "pengeluaran": [
      {
        "tanggal": "2022-12-31 00:00:00",
        "kodekum": "525111",
        "saldo": "13104038837",
        "tanggalupdate": "2022-11-07 00:00:00"
      }
    ]
  }
}
```



Komponen Hit Data Pengembalian UKT

The image displays four sequential screenshots of a REST client interface, each showing a GET request to the endpoint `/mahasiswa/data_pengembalian/{tahun_ajar}` with a specific authorization bearer token. The results show how the API responds to different input values for the `tahun_ajar` parameter.

Screenshot 1: Empty Parameter

Parameter	Data Type	Value
tahun_ajar	String	

```

{
  "status": "Bad Request",
  "http_code": 400,
  "error": "Tahun ajaran tidak boleh kosong"
}
    
```

Screenshot 2: Invalid Character Parameter

Parameter	Data Type	Value
tahun_ajar	String	a

```

{
  "status": "Bad Request",
  "http_code": 400,
  "error": "Tahun ajaran harus Integer"
}
    
```

Screenshot 3: Valid Integer Parameter

Parameter	Data Type	Value
tahun_ajar	String	2022

```

{
  "status": "Bad Request",
  "http_code": 400,
  "error": "Format tahun ajaran salah"
}
    
```

Screenshot 4: Valid Integer Parameter (Success)

Parameter	Data Type	Value
tahun_ajar	String	20241

```

{
  "status": "OK",
  "http_code": 200,
  "process_time": 0.2662,
  "error": null,
  "data": {
    "success": true,
    "data": [
      {
        "id": 22086,
        "nama": "2208511323",
        "nama_lengkap": "Shanda Pt. Galuh Pradiyan Utami",
        "fakultas": "Pertanian",
        "jurusan": "SI Agribisnis"
      }
    ]
  }
}
    
```

Lampiran 6 Kuisisioner SUS

Tujuan Kuisisioner: Untuk mengetahui tingkat kepuasan user terhadap sistem management microservices yang telah dibangun dan telah digunakan oleh user

No	Pertanyaan	Skor				
		1	2	3	4	5
1	Saya berpikir akan menggunakan sistem ini lagi.					
2	Saya merasa sistem ini rumit untuk digunakan.					
3	Saya merasa sistem ini mudah digunakan.					
4	Saya membutuhkan bantuan dari orang lain atau teknisi dalam menggunakan sistem ini.					
5	Saya merasa fitur-fitur sistem ini berjalan dengan semestinya.					
6	Saya merasa ada banyak hal yang tidak konsisten (tidak serasi pada sistem ini).					
7	Saya merasa orang lain akan memahami cara menggunakan sistem ini dengan cepat.					
8	Saya merasa sistem ini membingungkan.					
9	Saya merasa tidak ada hambatan dalam menggunakan sistem ini.					
10	Saya perlu membiasakan diri terlebih dahulu sebelum menggunakan sistem ini.					

Keterangan:

- 1 = Sangat Tidak Setuju;
- 2 = Tidak Setuju;
- 3 = Ragu-ragu;
- 4 = Setuju;
- 5 = Sangat Setuju

Lampiran 7 Riwayat Hidup Penulis



I Gede Nyoman Agung Jayarana, lahir di Denpasar, 9 Agustus 1990. Penulis merupakan anak ke 3 dari 3 bersaudara, pasangan dari I Nyoman Widisila, SE (Alm) dan Ni Luh Sri Puspawati (Alm). Penulis berkebangsaan Indonesia dan beragama Hindu. Kini Penulis beralamat di Jalan Noja Dukuh No 3 Denpasar Bali. Penulis menyelesaikan Pendidikan Dasar di SDN 17 Dauh Puri Denpasar, tamat tahun 2002. Sekolah Menengah Pertama (SMP) di tempuh di SMPN 5 Denpasar, tamat tahun 2005. Pendidikan Sekolah Menengah Atas (SMA) ditempuh di SMAN 6 Denpasar, tamat tahun 2008. Kemudian Penulis melanjutkan Pendidikan S1 di Jurusan Teknologi Informasi Fakultas Teknik Universitas Udayana dan menamatkan pada tahun 2012. Pada Tahun 2019 semester genap Penulis melanjutkan Pendidikan S2 di Program Studi Ilmu Komputer Program Pascasarjana Universitas Pendidikan Ganesha. Saat ini Penulis bekerja di Universitas Udayana pada Unit Sumber Daya Informasi (USDI) sebagai Programmer sejak Tahun 2016. Penulis menikah dengan Ni Kadek Handayani, dan hasil dari pernikahan dikaruniai dua orang putra.