

```
"/authentication": {
  "post": {
    "tags": ["Authentication"],
    "summary": "User login",
    "requestBody": {
      "description": "User login credentials",
      "required": true,
      "content": {
        "application/json": {
          "schema": {
            "type": "object",
            "properties": {
              "username": {
                "type": "string"
              },
              "password": {
                "type": "string"
              }
            }
          }
        }
      }
    }
  }
}
```

```
"/authentication/{auth_key}": {
  "put": {
    "tags": ["Authentication"],
    "summary": "Update password",
    "parameters": [
      {
        "name": "auth_key",
        "in": "path",
        "required": true,
        "schema": {
          "type": "string"
        }
      }
    ],
    "requestBody": {
      "description": "New password",
      "required": true,
      "content": {
        "application/json": {
          "schema": {
            "type": "object",
            "properties": {
              "password": {
                "type": "string"
              }
            }
          }
        }
      }
    }
  }
}
```

```
"/authentication/{auth_key}": {
  "get": {
    "tags": ["Authentication"],
    "summary": "Validate auth token",
    "parameters": [
      {
        "name": "auth_key",
        "in": "path",
        "required": true,
        "schema": {
          "type": "string"
        }
      }
    ]
  }
}
```

```
"/authentication/{auth_key}": {
  "delete": {
    "tags": ["Authentication"],
    "summary": "Delete authentication",
    "parameters": [
      {
        "name": "auth_key",
        "in": "path",
        "required": true,
        "schema": {
          "type": "string"
        }
      }
    ]
  }
}
```

| APIs | | | | |
|------------------------|------------|----------------------------|--------------------|-------------|
| BE Services | Operations | Endpoints | Input data | Output data |
| Gestão de Autenticação | POST | /authentication | Username, Password | auth_key |
| | PUT | /authentication/{auth_key} | Password | auth_token |
| | GET | /authentication/{auth_key} | auth_token | auth_valid |
| | DELETE | /authentication/{auth_key} | - | - |

| BE services | |
|------------------------|------------------|
| BE services | Resources |
| Gestão de Autenticação | /users/{user_id} |
| | /users/register |
| | /users/login |
| | /users/{user_id} |
| | /users/{user_id} |

| BE services | |
|-------------------------|-----------------|
| BE services | Resources |
| Notícias e Atualizações | /news |
| | /news/{news_id} |

| BE services | |
|-------------------------|-------------|
| BE services | Resources |
| Análise de Estatísticas | /statistics |

| FE Services | |
|--------------------------|--|
| Get List of News | |
| Get News Article Details | |
| Update News List | |

Stats

| BE services | |
|---------------------|---|
| BE services | Resources |
| Gestão de Favoritos | /users/{user_id}/favorites |
| | /users/{user_id}/favorites |
| | /users/{user_id}/favorites/{product_id} |

Gestão de favoritos

| FE Services | |
|---------------------------------|--|
| Fill Email | |
| Fill Password | |
| Clear Email and Password | |
| Submit | |
| Show Confirmation/Error Message | |

Catálogo de Produtos

Destaques De Produtos

| BE services | |
|-------------|-------------------------|
| BE services | Resources |
| Feedback | /feedback |
| | /feedback/{feedback_id} |
| | /feedback/{feedback_id} |

| BE services | |
|----------------------|------------------------|
| BE services | Resources |
| Catálogo de Produtos | /products |
| | /products/{product_id} |
| | /products |
| | /products/{product_id} |

| BE services | |
|-----------------------|--------------------------|
| BE services | Resources |
| Destaques de Produtos | /highlights |
| | /highlights |
| | /highlights/{product_id} |

| APIs | | | | |
|-------------|------------|-------------------------|-----------------|--------------------------|
| BE Services | Operations | Endpoints | Input data | Output data |
| Feedback | GET | /products/{product_id} | product_id | product_details |
| | GET | /feedback/{product_id} | product_id | product_id feedback list |
| | POST | /feedback | feedback_rating | feedback_confirmation |
| | DELETE | /feedback/{feedback_id} | feedback_id | deletion_confirmation |

```
"/products/{product_id}": {
  "get": {
    "tags": ["product"],
    "summary": "Retrieve a specific product by ID",
    "parameters": [
      {
        "name": "id",
        "in": "path",
        "required": true,
        "schema": {
          "type": "integer"
        }
      }
    ],
    "description": "Product ID"
  }
}
```

```
"/feedback/{feedback_id}": {
  "get": {
    "tags": ["feedback management"],
    "summary": "Retrieve all feedback",
    "parameters": [
      {
        "name": "feedback_id",
        "in": "path",
        "required": true,
        "schema": {
          "type": "integer"
        }
      }
    ],
  }
}
```

```
/feedback": {
  "post": {
    "tags": ["feedback management"],
    "required": true,
    "content": {
      "application/json": {
        "schema": {
          "$ref": "#/components/schemas/Product"
        }
      }
    }
  }
}
```

```
"/feedback/{feedback_id}": {
  "delete": {
    "tags": ["feedback management"],
    "summary": "Delete feedback",
    "parameters": [
      {
        "name": "feedback_id",
        "in": "path",
        "required": true,
        "schema": {
          "type": "integer"
        }
      }
    ]
  }
}
```