

# Documentation for routes/openl3.py

This module contains the endpoints for the OpenL3 service. It provides routes for extracting audio embeddings using the OpenL3 model. The embeddings can then be used to perform similarity searches on the embeddings using the Milvus service.

## Endpoints

### Endpoint: /openl3/embeddings/

Retrieves the embeddings for a specified audio file. This function loads a model from MinIO, retrieves the specified audio file as a temporary file, computes the embeddings using the loaded model, and then cleans up the temporary file. If successful, it returns an `EmbeddingResponse` object containing the file name and its embeddings. If the process fails, it raises an `HTTPException` with status code 500.

- **Parameters:**

- **file\_path** (str): The path to the audio file for which embeddings are to be computed.
- **user**: The current user object, automatically provided by the [ login\_manager ] dependency.

- **Returns:**

- **EmbeddingResponse**: An object containing the file name and its computed embeddings.

### Source code in routes/openl3.py :

```
@router.post("/embeddings/", response_model=EmbeddingResponse, tags=["OpenL3"])
def get_embeddings(file_path: str, user=Depends(login_manager), db: Session = Depenc
    print(f"Starting to get embeddings for file: {file_path}")
    try:
        embedding_512_model = load_model_from_minio()
        temp_file_path = get_temp_file_from_minio(file_path)
        # Compute embeddings using the temporary file path
        vector = embedding_512_model.compute(temp_file_path)
        embedding = vector.mean(axis=0)
        # Clean up the temporary file
        os.unlink(temp_file_path)
        print(f"Successfully processed embeddings for file: {file_path}")
        return EmbeddingResponse(file_name=file_path, embedding=embedding.tolist())
    except Exception as e:
        print(f"Failed to get embeddings for file: {file_path}. Error: {e}")
        raise HTTPException(status_code=500, detail=f"Failed to process the request:
```

