```
from fastapi import FastAPI, HTTPException, Query
from pydantic import BaseModel
from typing import List, Optional
app = FastAPI()
# Pydantic models
class Book(BaseModel):
  title: str
  author: str
  publication_year: int
class Review(BaseModel):
  text: str
  rating: int
# In-memory storage for books and reviews (replace with database in production)
books db = []
reviews_db = []
# Endpoints
@app.post("/books/")
def add book(book: Book):
  books db.append(book)
  return {"message": "Book added successfully"}
@app.post("/books/{book_id}/reviews/")
def submit review(book id: int, review: Review):
  if book id < 0 or book id >= len(books db):
    raise HTTPException(status_code=404, detail="Book not found")
  reviews db.append((book id, review))
  return {"message": "Review submitted successfully"}
@app.get("/books/")
def get_books(author: Optional[str] = None, publication year: Optional[int] = None):
  filtered books = books db
  if author:
    filtered_books = [book for book in filtered_books if book.author == author]
  if publication year:
    filtered books = [book for book in filtered books if book.publication year == publication year]
  return filtered books
@app.get("/books/{book id}/reviews/")
def get_book_reviews(book_id: int):
  if book_id < 0 or book_id >= len(books db):
    raise HTTPException(status_code=404, detail="Book not found")
  return [review for idx, review in reviews_db if idx == book_id]
# Error Handling
@app.exception_handler(HTTPException)
async def http_exception_handler(request, exc):
  return JSONResponse(
    status code=exc.status code,
    content={"message": exc.detail}
  )
```