1. **Class - Movie**

class Movie {

constructor(title, studio, rating = "PG") {

this.title = title;

this.studio = studio;

this.rating = rating;

}

static getPG(movies) {

return movies.filter((movie) => movie.rating === "PG");

}

}

const movies = [

new Movie("Casino Royale", "Eon Productions", "PG-13"),

new Movie("Avengers", "Disney", "A"),

new Movie("Finding Nemo", "Pixar", "PG"),

new Movie("big hero", "Universal movies", "PG"),

new Movie("The Terminator", "ABC Pictures", "C"),

new Movie("annatha", "sun pictures.", "PG"),

];

const pgMovies = Movie.getPG(movies);

console.log(pgMovies);

OUTPUT:

[ Movie { title: 'Finding Nemo', studio: 'Pixar', rating: 'PG' },

Movie { title: 'big hero', studio: 'Universal movies', rating: 'PG' },

Movie { title: 'annatha', studio: 'sun pictures.', rating: 'PG' } ]

1. **Circle – Class**

class Circle {

private radius: number = 1.0;

private color: string = "red";

constructor(radius: number);

constructor(radius: number, color: string);

constructor(radius: number, color?: string) {

this.radius = radius;

if (color) {

this.color = color;

}

}

getRadius(): number {

return this.radius;

}

setRadius(radius: number): void {

this.radius = radius;

}

getColor(): string {

return this.color;

}

setColor(color: string): void {

this.color = color;

}

toString(): string {

return `Circle[radius=${this.radius},color=${this.color}]`;

}

getArea(): number {

return Math.PI \* Math.pow(this.radius, 2);

}

getCircumference(): number {

return 2 \* Math.PI \* this.radius;

}

}