



Fig :- ZProgress Bar Core Component

Code

```
import React, { useState, useEffect } from 'react';
import { useStyles } from './Zprogresscss';
import { mergeClasses } from '@fluentui/react-components';

interface CircularProgressProps {
  radius: number;
  strokeWidth: number;
  percentage: number;
  texttitleclassName: string;
  circleFactor: number;
}

const Zprogress: React.FC<CircularProgressProps> = ({ radius, strokeWidth,
percentage , texttitleclassName , circleFactor , ...Props }) => {
  const classes = useStyles();
  const [normalizedRadius, setNormalizedRadius] = useState(radius - strokeWidth
/ circleFactor);
  const [circumference, setCircumference] = useState(2 * Math.PI *
normalizedRadius);
  const [offset, setOffset] = useState(circumference);
  const [animatedOffset, setAnimatedOffset] = useState(circumference);
  const [color, setColor] = useState('#4caf50');

  useEffect(() => {
```

```

    const newCircumference = 2 * Math.PI * normalizedRadius;
    setCircumference(newCircumference);
    const newOffset = newCircumference - (percentage / 100) *
newCircumference;
    setOffset(newOffset);
    animateFill(newOffset);

    if (percentage <= 25) {
        setColor('#ff0000');
    } else if (percentage <= 50) {
        setColor('#ffa500');
    } else if (percentage <= 80) {
        setColor('#ffff00');
    } else {
        setColor('#008000');
    }
}, [percentage, normalizedRadius]));

const animateFill = (newOffset: number) => {
    const duration = 500;
    let start = performance.now();

    const animate = (time: number) => {
        let timeFraction = (time - start) / duration;
        if (timeFraction > 1) timeFraction = 1;

        const currentOffset = offset - (offset - newOffset) * timeFraction;
        setAnimatedOffset(currentOffset);

        if (timeFraction < 1) {
            requestAnimationFrame(animate);
        }
    };

    requestAnimationFrame(animate);
};

return (
    <div>
        <svg
            height={radius * 2}
            width={radius * 2}
        >

```

```

        <circle
            stroke='#D1D1D1'
            fill='transparent'
            strokeWidth={strokeWidth}
            r={normalizedRadius}
            cx={radius}
            cy={radius}
        />
        <circle
            stroke={color}
            fill="transparent"
            strokeWidth={strokeWidth}
            strokeDasharray={`$${circumference} $${circumference}`}
            style={{
                strokeDashoffset: animatedOffset,
                transition: 'stroke-dashoffset 1s ease', // Smooth
transition
                transform: 'rotate(-90deg)',
                transformOrigin: '50% 50%',
            }}
            r={normalizedRadius}
            cx={radius}
            cy={radius}
        />

        <text
            x={radius}
            y={radius}
            textAnchor="middle"
            dominantBaseline="middle"
            fontSize={radius / 2}
            fill='#000'
            className={mergeClasses(classes.root, textTitleClassName)}
        >
            {percentage}%
        </text>
    </svg>
</div>
);
}

export default Zprogress;

```

CSS Code

```
import { makeStyles } from "@fluentui/react-components";

export const useStyles = makeStyles({
  root:{
    textAlign: "center",
    fontSize: "7px",
    fontStyle:"normal",
    fontWeight:700,
    height:"14px",
    width:"14px",
  }
});

<Zprogress radius={25} strokeWidth={5} percentage={89} circleFactor={0.5}
texttitleclassName="Title-text" />
```

Props Required for a ZProgress Bar Core Component

- 1) Radius
- 2) Strokewidth
- 3) Percentage
- 4) CircleFactor
- 5) texttitleclassName

How to use this component

Firstly render That Component Wherver it is required then add that are already being added in the above code where radius is used to increase the height and width and strokewidth is used to increase the size of the circle , we can change dynamically the Percentage and titleclassname is used for to change the size of text Percentage inside a Circle and CircleFactor is used to increase or decrease the outer circle....

possible ways to improve this component

1) The Following Ways through Which we can Improve Our ZProgressBar such that we can dynamically change the Percentage Through Backend Part Such That Whenever we fill up a form if it left half then it will show 50% , 25% , 10% and Many Color....