

```

\documentclass{article}
\usepackage{graphicx}
\title{Polynomials Project }
\author{}
\date{}

```

```

\begin{document}
\maketitle

```

The provided Java code constitutes a polynomial operations project aimed at facilitating various operations on polynomials. The project incorporates a menu-driven approach to interactively perform polynomial operations .

Key functionalities include:

```

\begin{itemize}
  \item Finding roots of quadratic equations.
  \item Performing polynomial addition.
  \item Performing polynomial subtraction.
  \item Performing polynomial multiplication.
  \item Substituting a value for 'x' in a polynomial.
  \item Computing polynomial derivatives.
\end{itemize}

```

The program runs continuously, allowing users to perform multiple operations until they choose to exit by selecting the appropriate option from the menu.

```

\begin{center}
\textbf{(1) Quadratic Equation Roots}
\end{center}
\begin{figure}[h]
  \centering
  \includegraphics[width=0.6\textwidth]{quadratic_roots_output.png}
  \caption{Output: Quadratic Equation Roots}
  \label{fig:quadratic-roots}
\end{figure}

```

```

\begin{figure}[h]
\begin{center}
\textbf{(2) Addition of 2 polynomials}
\end{center}

```

```

  \centering
  \includegraphics[width=0.6\textwidth]{addition.png}

```

```

\caption{Output: Addition of 2 polynomials}
\label{fig:addition}
\end{figure}

```

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\begin{figure}[h]
\begin{center}
\textbf{3) Subtraction of 2 polynomials}
\end{center}

```

```

\centering
\includegraphics[width=0.6\textwidth]{Subtraction.png}
\caption{Output: Subtraction of 2 polynomials}
\label{fig:Subtraction}
\end{figure}

```

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\begin{figure}[h]
\begin{center}
\textbf{4) Multiplication of 2 polynomials}
\end{center}

```

```

\centering
\includegraphics[width=0.6\textwidth]{Multiplication.png}
\caption{Output: Multiplication of 2 polynomials}
\label{fig: Multiplication }
\end{figure}

```

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\begin{figure}[h]
\begin{center}
\textbf{5) Substituting value of x}
\end{center}

```

```

\centering
\includegraphics[width=0.6\textwidth]{value.png}
\caption{Output: Substituting value of x}
\label{fig: value }
\end{figure}

```

```

\begin{figure}[h]
\begin{center}
\textbf{6) Derivation of polynomial}
\end{center}

```

```

\centering
\includegraphics[width=0.6\textwidth]{derivation.png}

```

```
\caption{Output: Derivation of polynomial}  
\label{fig:derivation}  
\end{figure}
```

```
\begin{figure}[h]  
\begin{center}  
\textbf{7) Exit}  
\end{center}
```

```
\centering  
\includegraphics[width=0.6\textwidth]{exit.png}  
\caption{Output: Exit}  
\label{fig:exit}  
\end{figure}
```

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\end{document}
```