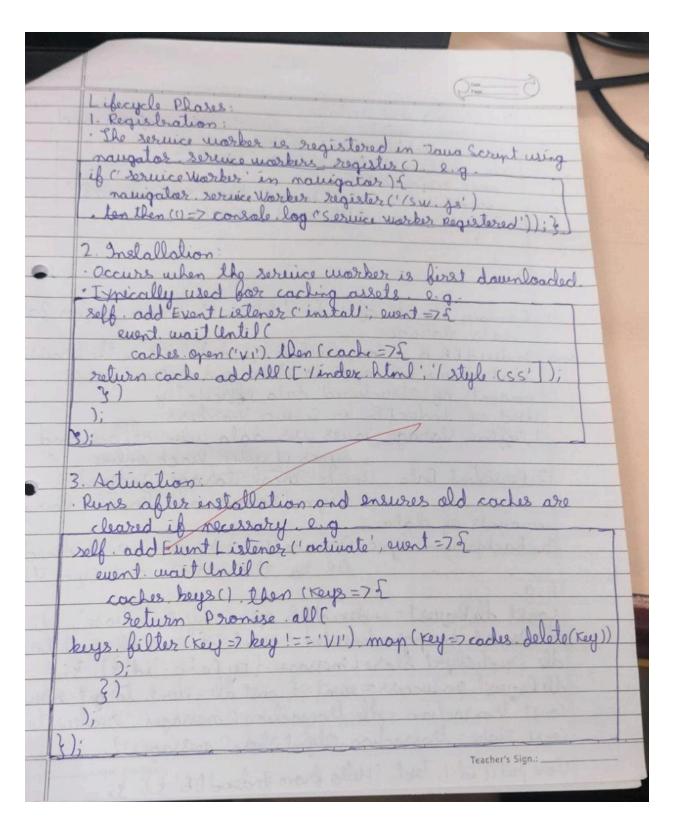
Vailehow Boudh D15 B MPL Assignment - 2 Roll no: 06 Define Progressive Web App (PWA) and explain its signi fecance in modern well development Discuss the bey characteristics that differentiate PWAS from traditional mobile apps me A progressive web app (PWA) is a web application that combines the liest beatures of holy well and mobile apps deliver a seamless, reliable, and fast user experience PWAS work offline, load quickly, and provide on app like experience on web lerousers Significance in Modern leele development: · platform Independence - Runs on oney delice with a web browner · Improved Performance Faster load times due to earling Service morbers · No App store Dependencies were con enstall pwas directly from the berouser · Engaging User Experience - provides nest notification and leadeground sepacing try characteristics of PWIG US Traditional habite Apps Gradelinal malile Appl Feature PWAS Installed from a browser Downladed from App Store Installation Regueres soprate develop works across platforms Platform with one codeliare mand bor iOS and Android Dependency Uses Service Workers Bor Usually requires nature Offline Support implementation Offline access Redures opp store undated automatically Updates undates via the well Con lie benior luit Faster due to caching and lightweight assets Performance Optemized for Specific natharns Teacher's Sign.:

				0
2	en the context of Progressive well spips Compare and contrast responsive, bluid, and adaptive well design			
cans	rages adapt to different screen sizes and orientations using flexible greds, media queries, and scalable images smootlance in PWAS: Ensures a consistent user experience across different devices Eliminates the need for multiple codebases for different such Enhances usuality by making content readable on varior screen. Comparison of Perposiue, Feyind and Adaptive well design.			
La				
1011	Definition	Responsive Uses CSS media Querus to adjust laejout depronecally	hosed units for	layouts for
- 4	Flexibility	Highly Flexible	Completely	Fixed at Specific
	Performance	Efficient leut reg- lieres moro CSS adjustments		layout shifts
	Best use	Borall screen	Seanless Scaling	
3.	Describe the lifecycle of Service Workers, including registration, installation, and actuation places			
Ans	A Service Worker is a background script that runs enderen dently from the main browser thread, enabling features like offline caching and push notification.			
			, , , , , , , , , , , , , , , , , , , ,	Teacher's Sign.:



Dim 3. 4. Fetching and Updates · The service worker intercepts retwork requests and self. add Event Listener (betch; event = >5 event respond with (caches match (event request). Then (response = 7 & return response 11 butch (event request); Explain the use of Indexed DB in the Service Worker Gor and Indexed DB is a love-level NoSal dataliase in the browser that allows well apple to store and retrue large amounts of structured data efficiently Used of Index DR in Service Workers 1. Offline storage - Souls user data when appliene and somes it when leach online 2. Porsistent Data - Unlike local Storage, andered OB is osephchronous and handles large Background Sync-Service Workers con use Indexed DB to store data and since Ilaly Const de Request = indéxed DB. open ('my Dataliase' de Regrest onepgradeneded = event = >5 const de = event target; dle create Object Store ('messages', [teg Path - id' }); de Regjest onSuccess = event => f const de = event torget sosell; const tronsaction = de tronsaction ('messages, 'readeurite') Const store - transaction Object store (messages) slove pet ({ id:1, Text: 'Hello from Indexed DB' }); 3;